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ABSTRACT

The study reconceptualized the construct anticipatory goal deflection and recast it as anticipatory success. Previous theoretical and empirical work was reviewed and a recursive model developed based on 8 hypotheses involving aggregate measures of socioeconomic origin index as an exogenous variable, achievement motivation, and anticipatory occupational success as the ultimate dependent variable. The conceptual model was empirically tested using a sample of black and white, male and female high school seniors from Louisiana in the winter of 1969 (1,070 white females, 332 black females, 1,087 white males, and 226 black males). Stratification was imposed by school size (large-small), school type (public-parochial), residential location (rural-urban), and race (black-white). Analysis results indicated the hypothesis critical to the model was generally supported for the total sample, race, sex and race by sex subsamples. A notable exception to this was the finding that socioeconomic origins do not predict achievement motivation. The findings suggested that concept anticipatory success and the models were sufficiently promising to warrant further research but conclusions as to the validity and generalizability of either must be held in abeyance pending future research. (Author/KM)

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A THEORETICAL MODEL OF ANTICIPATORY SUCCESS: AN EMPIRICAL EVALUATION

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of Sociology

by
Evans Wayne Curry
B.A., Louisiana College, 1965
M.A., Louisiana State University, 1970

[1973]

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ABSTRACT

This study reconceptualizes the construct anticipatory goal deflection (which employs the constructs aspirations and expectations in formulation) and recasts it as anticipatory success. Previous theoretical and empirical work is reviewed and a recursive model developed based on eight hypothesis involving aggregate measures of socio-economic origin index as an exogenous variable, achievement motivation, anticipatory occupational success as the ultimate dependent variable. An extension of the unmeasured variable technique from path analysis is developed and employed in measuring the variables socio-economic origin index and anticipatory occupational goal impedance.

The conceptual model is empirically tested using a sample black and white, male and female high school seniors from Louisiana in the winter of 1969. The sample was drawn employing a random proportionate-stratified cluster selection technique. Stratification was imposed by school size (less than 100, 100-500, over 500), school type (public-parochial) residential location (rural-urban) and race (black-white). Results of the analysis indicate the hypothesis critical to the model to be generally supported for the total sample, race, sex and race by sex subsamples. A notable exception to this is the finding that socio-economic origins do not predict achievement motivation. This hiatus is taken up and an elaborated model which adds number of siblings as an

exogenous variable and I.Q. as an endogenous variable to the original model is suggested for future research. The findings of the research suggest that concept anticipatory success and the models are sufficiently promising to warrant further research but conclusions as to the validity and generalizability of either must be held in abeyance pending future research.

CHAPTER I

Introduction

The concept anticipatory goal deflection (AGD) developed by Kuvlesky and Bealer (1966) has generated both sociological interest and research (Ameen, 1967; Lever, 1969; Kuvlesky, Wright and Jaurez, 1969; Cosby and Picou, 1971; Curry, 1970; Curry and Picou, 1971). The concept can be criticized, however, from two points. The first is a lack of empirical documentation of the theoretical basis of the concept. The second is lack of integration of the concept into a larger sociological frame of reference. These points shall be discussed below.

The concept A.G.D. has been used in research in terms of a distinction between career expectations and aspirations (see: Kuvlesky and Bealer, 1966) taken as an empirical given. The problem is primarily one of criteria. These concepts, to be argued relevant to sociology, must be shown to have consequences for social organization and/or interaction. Barring this, they must be shown minimally to have their origins in social organization or interaction, thus establishing their potential consequences for one or both. The proposed research shall examine the data as to the latter relationships. The former are impossible since the data contains no status attainment information for the subjects.

The second problem, the lack of conceptual integration of AGD, has yielded primarily empirical delineations limited to those findings. Relationships tend to be explained by ad hoc speculations rather than inferences consistent with a theoretical perspective within which the empirical study was framed (for example, see: Curry and Picou, 1971 and Cosby and Picou, 1971). This stems from a basic weakness in the conceptualization and particularly the operationalization of the concept A.G.D. This study will explore a model which modifies both the conceptualization and the operationalization of this variable.

Summarily, this investigation will explore the question of the validity of the distinction of aspiration and expectation in two ways.[1] The first is to examine the data for systematic, status-related differences between the two concepts. The second is to test whether an operation which transforms these concepts into an index (understandable in a sociological context) yields relationships consistent with the theory.

The Concept Anticipatory Goal Deflection

The concept AGD is defined as the real difference between expectations and aspirations (Kuvlesky and Bealer, 1966).

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[1]Validity, like causality, can never be proven. The researcher can only impose certain "operational criteria" on his data and infer validity if these criteria are met.

Symbolically this may be represented as:

$$D = E - A$$

Where:

D = AGD
E = Expectations
A = Aspirations

The problem here, as noted above, is that the concept does not relate to a larger sociological framework. Consequently, the operationalization taps an individual's anticipated achievement relative to his own goals, but not to that of the culture.

For example:

Assume:

$$D_1 = E_1 - A_1 \quad (1)$$

and:

$$D_2 = E_2 - A_2 \quad (2)$$

and:

$$A_1 \neq A_2 \quad (3)$$

but:

$$E_1 = A_1 \quad (4)$$

and:

$$E_2 = A_2 \quad (5)$$

then:

$$D_1 = D_2 \quad (6)$$

When this conclusion is considered against the work of Merton (1957) and the complimentary work of Williams (1970) the inadequacy of the preceeding argument becomes apparent.

Their perspective is simply that American society is characterized by a very strong emphasis on success and achievement (Merton, 1957: 136-139 and Williams, 1970: 454).

Further, Merton (1957: 132) argues that alternative goals are differentially valued, yielding a hierarchy of goals. This contention receives empirical support in the occupational domain from the prestige studies that have been conducted over the years (see: Hodge, Siegel and Rossi: 1966, 322-332). This argument points to the importance of the goal achieved as well as the achievement <u>per se</u>. The current operationalization of A.G.D. in the sociological literature clearly does not account for this. If AGD is construed as a negative form of success ($\bar{S}$):

then from (1):

$$\bar{S}_1 = D_1 \tag{7}$$

and from (2):

$$\bar{S}_2 = D_2 \tag{8}$$

then from (6):

$$\bar{S}_1 = \bar{S}_2 \tag{9}$$

but from (3) placed in a cultural perspective:

$$\bar{S}_1 \neq \bar{S}_2 \tag{10}$$

The contradiction of conclusions (9) and (10) suggest the inadequacy of the original AGD formulation.

From the foregoing discussion two components of success can be identified. One is personal success,

measured in terms of the degree to which an individual is able to attain his own goals. The other might be termed "social success", measured in terms of the degree to which an individual is able to attain a goal highly valued in the culture. The position is taken herein that a general success index must reflect both these components. Further, by shifting emphasis from AGD to anticipatory success, a new concept emerges, which can be placed within a framework of sociological theory. The new concept of AGD is so structured as to be a perfect inverse function of anticipatory success. That is, the correlation between AGD and anticipatory success equals -1., and the slope of the line when one is regressed on the other equals -1. In this context AGD is 1 minus anticipatory success.

Merton (1957: 152) suggests that success can be expressed as the ratio of one's achievement to one's goals or aspirations. While suggestive, this formulation is inadequate for much the same reason as is the original AGD formulation. That is, a person who achieves a lower or less valued goal has the same success score as one who achieves a higher goal. This does not account for achievement relative to cultural values. This problem can be resolved by employing the distinction noted above (i.e., personal and social success). Personal success can be defined, following Merton, as the ratio of

one's achievement to one's goals or attainment. Social success can be defined as the ratio of one's achievement to the highest valued cultural goal within the domain in question. The product of these two values yields an index conforming to the criteria established above and possessing a range from 0. to 1., as shall be shown in the ensuing discussion. Symbolically, this concept may be stated as follows:

$$S = \frac{A}{G} \frac{A}{V} \tag{2.1}$$

$$= \frac{A^2}{GV} \tag{2.2}$$

where:

S = success index (2.3)

A = achievement (2.4)

G = individual's goal or aspiration (2.5)

V = highest valued goal within the domain (2.6)

The above formulation as stated possesses a particular weakness. Namely, it is possible for the cultural value of one's achievement to be greater than the cultural value of one's goal. This factor makes the upper limit of the success index indeterminate. However, by viewing personal goals or aspirations as the constraining value on personal success, this dilemma may be circumvented. That is, when one exceeds his goals his personal success is attenuated to the same degree as if he has fallen short of his goal to the same degree. What is presented here

can be stated as the limit on personal success. This view tends to be supported by the work of Atkinson (1964) where he agrues that both the individual who selects a goal for which the subjective probability of attainment approaches 0. and the individual who selects a goal for which the subjective probability of attainment approaches 1. are characterized by low N achievement. He (Atkinson, 1964) also demonstrates from experimental studies that individuals with low N achievement tend to choose unrealistically high or unrealistically low goals. This constraint or limit is operationalized as follows:

when $A \leq G$:

$$C = G \tag{2.7}$$

where:

A = defined in (2.4)
G = defined in (2.5)
C = constraint of limit on personal success (2.8)

when $A > G$:

$$C = A + \left\{\frac{V-G}{G}\ (A-G)\right\} \tag{2.9}$$

where:

C = defined in (2.8)
A = defined in (2.4)
V = defined in (2.6)
G = defined in (2.5)

which simplifies to:

$$C = \frac{VA}{G} - V + G \tag{2.10}$$

Within this framework, personal achievement, which exceeds the personal goal, is "adjusted" in the computation of personal success in the same manner as if personal achievement had fallen short of the personal goal to the same relative degree. Success as defined in (2.2) is now redefined:

$$S = \frac{A^2}{CV} \qquad (3.0)$$

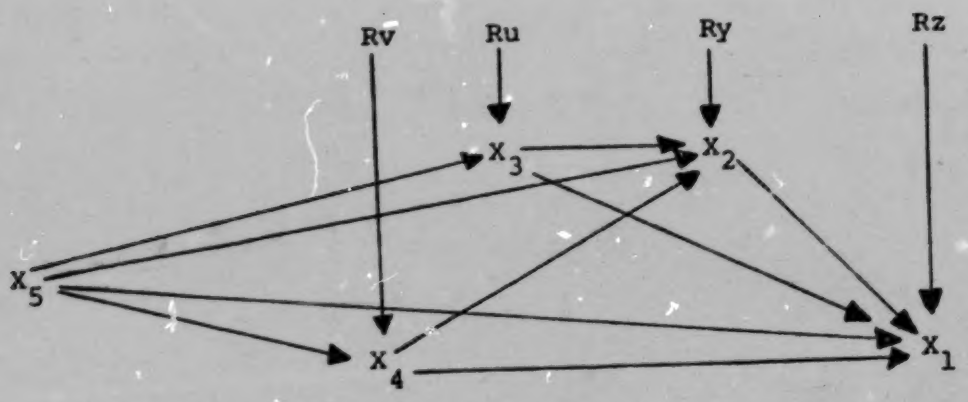
All terms are previously defined.

The proposed research will deal with anticipatory success rather than actual success. The operationalization developed above shall be employed in constructing the index. The only modification required is the substitution of expected achievement (expectations) for actual achievement. From this perspective AGD is defined as one minus anticipatory success. Therefore, from whatever relationships may be shown to exist between AS and other variables the inverse may be inferred to hold for AGD.

Anticipatory Success and Antecedent Relations:

The second "operational criteria" imposed for assessment of the validity of distinction between aspirations and expectation requires that the anticipated success variable be demonstrated to be the consequence of sociologically relevant antecedents. This study will test this through a recursive model which incorporates two types of anticipatory success, educational and occupational.

The model is presented in Figure 1:



where:

X_1 = anticipatory occupational success

X_2 = anticipatory educational success

X_3 = achievement motivation

X_4 = occupational goal impedance

X_5 = socio-economic origin index (SEOI)

Figure 1. Basic Path Model of Anticipatory Success

Three observations are pertinent at this point. First, the above model represents a "minimal model" capable of evaluating the concept anticipatory success. Second, empirical validation of the model (i.e., that the postulated relationships are in fact non-zero) does not necessarily confirm the ordering of the variables as developed in the model. This shall be treated at greater length in the "limitations" section of the final chapter. Third, to the degree that the model is confirmed, it provides an avenue for altering the "Wisconsin Status Attainment Model" (Haller and Portes, 1973).

CHAPTER II

The Basis of the Model

Introduction

The model presented above derives from and holds relevance for two areas of sociological theory and research. These are aspirations and status attainment. However, a review of the literature of these fields in the traditional sense shall not be attempted here. Ample reviews exist and are accessable to the interested reader.

Both aspiration theory and research have considerable history in psychology and sociology. Crites (1969) presents a comprehensive and definitive statement of the work done in psychology concerning aspirations and the occupational choice process. Reviews of sociological work done in this area are recounted by Cosby (1973), Kuvlesky (1969), Picou (1970), and Picou and Curry (1971).

The area that is defined as status attainment refers to those processes by which individuals come to occupy their positions in the status system of the society in which they live (Haller and Portes 1973: 54). Their (Haller and Portes 1973: 58-62) review of the two major thrusts of causal research identifies occupational aspiration as a significant endogenous variable in the "Wisconsin Model." This fact places this dissertation's research potentially in the area of status attainment.

Since the model herein does not include attainment the above claim may appear, on the surface, incongruous. However, Haller and Portes (1973:59) in identifying educational aspir-

ation and level of occupational aspiration as primary mediating variables, make the above contention plausible. In a recent paper, Otto, et. al (1973) analysed the items upon which level of occupational aspiration is based using a nation-wide sample of 34,118 high school young people (Otto, et. al 1973: 4). In the analysis, controls were imposed by sex, grade in school and socio-economic status (high, low) and factor analysis performed on each of the sixteen subsamples. An oblique rotation produced two factors in all subsamples (Otto, et. al 1973: 6). Although the factors are consistently highly correlated, in every case items of the test set designated as realistic have their primary loadings on one factor in every subsample, while those designated as idealistic have their primary loadings on the other factor in every subsample. Traditionally, level of aspiration has been determined by summing the "Occupational Aspiration Scale" items (Haller and Miller 1963). However, the above findings suggest that the measure of level of occupational aspirations may, in fact, be composed of two interactive factors. To the degree that such inference is true, an operationalization, such as anticipatory success, which can deal mathematically with such interaction is more appropriate. While, in finality the importance of the model to status attainment can only be determined when it is expanded and tested on data in which attainment has been measured, its potential relevance to the area of status attainment seems a reasonable inference.

The Logic of the Model

The logic of the relationships depicted in the model in figure 1 are straightforward. They are based on inferences from both empirical and theoretical work. The work upon which this model is based has been accomplished primarily in sociology but it also draws from work in social psychology.

The first relationship of the model is that anticipatory educational success (X_2) predicts anticipatory occupational success (X_1). The basis of the inference is Merton's (1957: 132-33) means-ends distinction. Simply, it is assumed a priori that one's anticipated success in attaining goals must be predicated on one's anticipated success in gaining access to the means. It is hypothesized that the partial regression coefficient between X_2 and X_1 is greater than 0.

The next set of relationships depicted by the model is that achievement motivation (X_3) predicts both A.E.S. (X_2) and A.O.S. (X_1). This derives from the work of Atkinson (1964) and McClelland (1961). However, the introduction of the means-ends distinction implies that the effect of achievement motivation on A.O.S. is mediated by A.E.S. It is, therefore, hypothesised that the partial regression coefficient between:

1. X_1 and $X_3 = 0$.
2. X_2 and $X_3 > 0$.

For goal impedance (X_4) hypothesized relationships are that the partial regression coefficients between:

1. X_1 and $X_4 < 0$.
2. X_2 and $X_4 < 0$.

Both relationships are hypothesized as greater than 0., due to the fact that the measurement of occupational goal impedance taps aspects limiting educational achievement as well as other limitations on occupational achievement per se. The relationships can be inferred from a definition of the situation (Thomas, 1928: 584) perspective. That is, as the perceived number of obstacles and their intensity of obstruction increases one's anticipated success decreases. Empirical work which tends to corroborate this argument include Han (1969) and Curry and Picou (1971).

The logic of the relationships of the socio-economic status index (X_5) can only be structured by anticipating the operationalization of the variable. Certain premises are assumed as a basis for its (X_5) structure. The first is that a status which is achieved by an individual becomes an ascribed status for his progeny at least in the dependency period of the child. The second is that while an individual possess multiple statuses (Bertrand, 1972: 188) their effect on progeny is in aggregate rather than individually. This is held to be true whether statuses are taken as an "index" of a value or attitudinal structure

which is transmitted by parents to progeny through interaction or whether the ascribed statuses constitute a background or gestalt from which the child developes his definition of the situation. In this discussion the former shall be called 'interaction effects' and the latter 'structural effects." The approach which will be taken in this study is to create an index of the common variance of four socio-economic status indicators, fathers' education, mothers' education, fathers' occupation, and community size. A technique appropriate to this task has been developed by Duncan (1972).[1] Although the technique differs, a logic similar to that employed herein is implicit in the Wisconsin status attainment work (see: Sewell, Haller and Portes, 1969; Sewell, Haller and Ohlendorf, 1970).

There is no work conceptual or empirical which clearly demonstrates status factor to be either interactive or structural. This study is neither intended nor designed to test this question. However, a limited argument can be established that in the area of this investigation the consequences are the same. That is, the predicted relationship between other variables and the status factor remain unchanged whether its effect is taken as interactional or structural.

Wendling and Elliot (1968) demonstrated that middle class mothers in two California school districts held higher

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[1]The specific technique is explicated in detail in Chapter III.

educational aspirations and expectations for their ninth grade children than mothers from working class or lower class backgrounds. Further, working class mothers held higher aspirations and expectations than lower class mothers.

Analyzing a probability sample comprised of ten percent of the male high school seniors in the state of Washington, Empey (1956: 706) reported both preferred level of occupational aspiration (aspiration) and anticipated level of occupational aspiration (expectations) to be significantly and positively related to fathers occupational status. Further inspection of the mean preferred and anticipated occupational aspirations for each of the ten fathers' occupational status categories reveals that mean preferred aspirations exceed mean anticipated aspirations in eight of the ten categories (Empey, 1956: 708). However, the mean difference did not obtain statistical significance. On the other hand, analysis (author's analysis) of the association between the rank order of fathers' occupational status and the rank order of the absolute difference between preferred and anticipated aspirations yielded a Spearmans rho of .624, significant at the .05 level of confidence with 10 pairs of observations (Siegel, 1956: 284). It should be noted that ranking the absolute differences between preferred and anticipated aspiration is consistent with the concept of aspirations as a limiting function.

Rehberg (1967) conducted a study of 2,852 urban sophomore males in Pennsylvania in which both occupational and educational aspirations and expectations were analyzed. While the data he presents does not allow for an analysis of the magnitude of differences in aspirations and expectations, he does present the proportion of respondents aspiring and expecting high-level goals by class (Rehberg, 1967: 86). When the 18 classes are rank-ordered and the difference in percentage expecting high level plans for each class is rank-ordered from smallest difference to the largest, Spearmans rhos f .651 and .676 result for occupational and educational differences respectively. Both values are significant at the .01 level of confidence with 18 pairs of observations (Siegel, 1956: 284).

The above data lead to the tenative hypothesis that the partial regression coefficient between:

1. X_1 and $X_5 > 0$.
2. X_2 and $X_5 > 0$.

These hypothesis are termed tentative for three reasons. The first is that the class indicators in all of the above studies are some form of father's occupation while this study proposes to employ an aggregate status factor. The second is that the studies were not conducted to answer the question raised herein, all but the secondary analysis presented above are suggestive of a linkage

between some form of social class and anticipatory success. The third is that there is not adequate evidence to indicate whether the effect of a status factor is only indirect through achievement motivation and goal impedence or both direct and indirect. The author is able to discover only two studies which deal somewhat with this question, Han (1969) and Curry and Picou (1971).

Han (1969) distinguished perception of limited opportunity and perception of limited ability. While not directly comparable this schema is analogous to goal impedance (X_4). The findings of Han's research are as follows:

1. Perception of limitations effected expectations but not aspirations (pp. 683, 684)
2. Perception of limitations had a slight effect on expectations when family status was held constant (p. 685)
3. Perception of limited opportunity effected discrepancy between aspiration only for low family status while perception of limited ability effected discrepancy between aspirations and expectations for all levels of family status (pp. 686, 687).

These findings are limited in their generalizability by the sample (Han, 1969: 687). However, they suggest that perception of opportunity does effect anticipated success. Additionally, though the data are not analyzed, inspection of the tables suggests that discrepancy between aspirations and expectations tend to increase as family status decreases when perception of limitations is held

constant (see: Han, 1969: 686, 687). This would argue for the hypothesis concerning X_1 and X_5 and X_2 and X_5 above.

Curry and Picou (1971) found that both fathers' education and goal impedance affected anticipatory occupational goal deflection. Additionally fathers' occupation had a weak negative effect on goal impedance. It should be noted, however, that total explained variance was very small (Curry, and Picou, 1971: 327).

While neither of the studies above deal with the same measurement of variables as this study, they are suggestive. From these sources it is tentatively hypothesized that the partial regression coefficient between X_4 and $X_5 < 0$.

The final relationship to the socio-economic status index (X_5) is that of achievement motivation (X_3). From the work of McClelland (1961) it is hypothesized that the partial regression coefficient between X_3 and $X_5 > 0$. McClelland (1961: 362-64) cites studies indicating a positive relationship between social class and N achievement. His report indicates that the middle class tends to be somewhat higher than the upper class in N achievement. This suggests that were the above hypothesis supported, the strength of the relationship may be somewhat underestimated.

The model developed herein is proposed as a general model. However, preliminary findings in a study of career pattern of women by Vetter (forthcoming) and sex differences found by Han (1969) in the study cited earlier indicate that the model should be examined controlling for sex. Additionally, findings by Carter, et al (1972) concerning racial variations in the aspiration formation process, utilizing the same data which shall be employed in this investigation, indicates the utility of controlling for race. Therefore, the proposed causal model shall be evaluated as a general model and then analyzed controlling for race, sex and race and sex. This procedure yields eight control categories within which models shall be evaluated.

CHAPTER III

Methodology

Introduction

The following chapter describes the sample upon which the analysis is based, the data to be analyzed, the methods of scaling employed, and the techniques of analysis applied. A slight departure from normal protocol on the discussion should be noted. That is, those variables measured directly by the interview schedule shall simply be listed in the body of the chapter. The variables and their operationalization are presented in Appendix A. This is done in order to give primary emphasis to the various scaling operations which build variables actually employed in the data analysis.

The Sample

The sampling technique employed is stratified, proportionate, random, cluster sampling. All senior high schools in the state of Louisiana were stratified by residence (rural-urban), school size (large-small), and school type (parochial-public).[1] The technique follows procedures described by Ackoff (1953: 99-101). This sample is described in detail in Picou (1971: 65-66).

Prior to data gathering, interviewers were briefed on the instrumentation of the schedule. All interviewers were

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[1]The so-called "private schools" were not included in the sample.

either graduate students or members of the L.S.U. Department of Sociology and Rural Sociology Faculty. Interviews were conducted in November, 1970.

The final sample included 3,245 respondents. The race-sex distribution of the sample is 1,253 white females, 421 black females, 1,247 white males, 317 black males and 7 non-whites who were not black. The last group were eliminated from the sample in that they were insufficient to comprise an adequate subsample for analysis. Additionally, any remaining respondents who had missing data on one or more of the 44 raw data items employed in scaling or analysis were eliminated. This procedure reduced the sample to 2,715 respondents. The race-sex distribution of respondents kept for analysis is 1,070 white females, 332 black females, 1,087 white males, and 226 black males. Table 1 displays the proportionality of the race-sex subsamples before and after elimination of respondents with missing data.

Table 1

Proportion that Race-Sex Subsamples Comprise of the Total Sample and Analysis Sample

Race-Sex Subsample	% in Group Rejected	% in Analysis Sample	% in Total Sample
Black Females	17.02	12.23	13.00
Black Males	17.40	8.32	9.79
White Females	34.99	39.41	38.70
White Males	30.59	40.04	38.51
Total	100.00	100.00	100.00

In order to assess the potential for bias introduced by the deletion of respondents, the matrices of zero-order correlations were compared. This approach follows that suggested by Rico-Velasco (1972) for comparing two matricies of zero-order correlations. He argues that the mean absolute difference between correlation coefficients should not be significantly different from zero as measured by a t or z test for significance (Rico-Velasco, 1972: 11). The zero-order correlations were obtained for the 44 raw data items for the analysis sample and for the groups eliminated from the analysis. The mean absolute difference between the correlations is .051 with a standard deviation of .044. This yields a Z of 1.174 with 1935 degrees of freedom, not significant at $\alpha = .05$.

The matricies were further compared by obtaining the zero-order correlation between them. The logic of this step follows from the fact that the coefficient of alienation gives some indication of the degree to which the monotonic relationship among the correlation coefficients in one matrix differs from that in the other. Since, at the level of scaling and analysis, attention is focused on the alienation roughly indexes a potential source of bias. The correlation between the two matrices is .939. The coefficient of alienation is .118.

Both the analysis of the differences between correlations between the matrices and the correlation analysis of

the matrices themselves argue that the two matrices are not greatly different. Further, inspection of Table 1 indicates that deviation of subgroup proportions from those of the total sample are consistently greater for the group rejected than for the group retained for analysis. However, the fact that deviations from the total sample subgroup proportions do exist among the subgroups of the group analyzed and that 11.8% of the variation among zero-order correlations in one matrix is independent of that in the other, combined with the exploratory nature of this study, argues that the findings should not be extrapolated beyond the sample. The safest position would seem to be to evaluate whether the findings appear sufficiently "promising" to warrant replication.

The Variables

Forty-four items from the original data are employed either in developing scales, directly in analysis or as control variables. For sake of brevity in this chapter, they shall only be listed in summary fashion. The instrumentation and operationalization of the items not defined in Picou (1971) are presented in Appendix A. The items are:

Occupational fantasy choice (Picou, 1971: 68),
Occupational aspirations (Picou, 1971: 68),
Occupational expectations (Picou, 1971: 68),
Educational fantasy choice (Picou, 1971: 69),
Educational aspirations (Picou, 1971: 69),

Educational expectations (Picou, 1971: 70),

Goal Impedance Scale items (12 items),

Children's Achievement Scale items (20 items),

Residence,

Fathers' education (Picou, 1971: 66),

Mothers' education,

Fathers' occupation (Picou, 1971: 66),

Race and

Sex.

The following discussion delineates the operational definition by which individuals are assigned scale scores for each of the variables employed in the model presented on page 9 of this dissertation. Items presented above provide the data upon which the various scales are based.

Anticipatory occupational success (AOS), (X_1). The operationalization of this variable is presented in the formulation of concept anticipatory success earlier in this paper. Two variables listed above are employed in the construction of this variable. Occupational aspiration (O.A.) is employed as the personal occupational goal which sets the limits of personal success. Its instrumentation (Picou, 1971: 68) makes it that by definition. Occupational expectation (O.E.) is employed as expected achievement. Both the"constraint value" (c) and anticipatory occupational success (A.O.S.) may be defined from these.

From (2.7)

when O.E. $\leq$ O.A.:

$$C = O.A.$$

From (2.10)

when O.E. > O.A.:

$$C = \frac{100\ O.E.}{O.A.} - 100 + O.A.$$

Then from (3.0)

$$A.O.S. = \frac{(O.E.)^2}{C\ 100}$$

The value 100 appears in this formulation as the maximum "cultural value" an occupation can take under the N.O.R.C. scoring system. For convenience the AOS scores will be multiplied by 100 giving it a range of 0. to 100. For the sample analyzed, this variable has a mean of 69.93 and a standard deviation of 12.26.

Anticipatory educational success (A.E.S.), (X_2). This variable was scaled in the same manner as AOS employing educational aspiration (EA) as personal goal or constraining factor, educational expectation (EE) as expected achievement and the value nine as the maximum "cultural value" of educational achievement (see: Picou, 1971: 67). This variable yielded a mean of 40.17 and a standard deviation of 26.67. It should be noted that this mean is considerably smaller than the mean anticipatory occupational success score, although both are set to the same scale range. This finding has theoretical implications which shall be discussed in the concluding chapter.

Achievement Motivation, (X_3). Structured as the sum of the twenty items of the Childrens Achievement Scale (Weiner and Kukla, 1970). This technique was employed due to the fact that the items appear to be approximately orthogonal to one another. This conclusion stems from two sources. The first is inspection of the matrix of zero-order correlations of the twenty items (see: Table 1, Appendix B). The second is that a factor analysis, using a centroid extraction technique of raw cross-products (Harmon, 1960: 192-215) which maximizes the probability of extracting a single factor, indicated that there existed twelve factors among the items.

At this point, the question arises as to whether the items, in fact, can be scaled. Nunnally (1967: 245-250) describes what he terms a "criterion oriented" scale as one in which the items comprising the scale are all weakly or non-correlated with one another. In such a case, the scale score is the sum of the item values. Since the variable, achievement motivation, has achievement as its criterion, it is obviously impossible to test the relationship between the items and their criterion.

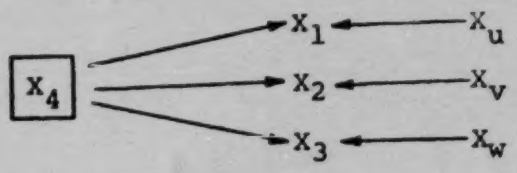
In order to develop some indication of whether the summed items comprise a scale, a variable, external to those included in the model, but which research indicates is related to achievement motivation, was sought. Lavin (1965: 76), summarizing research in this area, indicates that weak, positive zero-order correlations usually occur

between academic performance (measured by grade point average) and "questionnaire measures of achievement motivation." While actual grade point average is not available for the entire sample, perceived grade point average is available. Carter, Picou, Curry and Tracy (1972) state that for the 49 percent of the sample for which both measures are available the zero-order correlation is .78. Perceived grade point average, achievement and achievement motivations as operationalized herein have a zero-order correlation of .17. While somewhat weaker than values reported by Lavin (1965), the relationship is significant at $\alpha = .05$ and is in the predicted direction. While the above analysis does not prove the validity of the scale, the results do suggest that achievement motivation is being tapped. However, the achievement-motivation measure appears to be weak and any conclusions stemming from analysis of this variable should be interpreted with caution. In the sample analyzed, the variable obtained a mean of 8.49 and a standard deviation of 2.25. The absolute range of the variable is 0. to 20.

The last two variables are operationalized by the same technique. The logic upon which operationalization is based is the same for both. The variables are goal impedance (X_4) and socio-economic origin index (X_5). The technique is an extension of the logic developed by Duncan (1972) for

estimating the effect of a single unmeasured variable on several measured variables.

Given at least three variables (X_1, X_2 and X_3) which are measured among some sample or the population, the effect of an assumed unmeasured, underlying variable on each X may be measured (Duncan, 1972: 41). Figure 1 presents such a model with its structural equations.



where:

$$X_1 = p14X4 + p1uXu$$

$$X_2 = p24X4 + p2vXv$$

$$X_3 = p34X4 + p3wXw$$

and:

$$ruv = ruw = rvw = 0$$

Figure 1: Model and structural equations for three measured variables having a single unmeasured underlying variable.

Duncan (1972: 41) has shown that the solutions for the paths in figure 1 are as follows:

$$p14 = \sqrt{\frac{r_{12}\ r_{13}}{r_{23}}}$$

$$p24 = \sqrt{\frac{r_{21}\ r_{23}}{r_{13}}}$$

$$p34 = \sqrt{\frac{r_{13}\ r_{23}}{r_{12}}}$$

where:

r = measured correlation coefficient between variables.

p = path or standardized regression coefficient.

Subscripts denote the variables for which the relationship is measured.

Duncan (1972: 44) posits that the general equation for estimating the path coefficient between an underlying, unmeasured variable and three or more measured variables with unmeasured residuals is:

$$p_{il} = \sqrt{\frac{\sum_{j=1}^{n}\sum_{k=1}^{n} r_{ij}\, r_{ik}}{\sum_{j=1}^{n}\sum_{k=1}^{n} r_{jk}}}$$

where:

p_{il} = path or standardized regression coefficient between the i^{th} measured variable and the underlying variable,

r_{ij} = correlation coefficient between i^{th} and j^{th} measured variables where $i = 1, 2, \ldots, n$ and $j = 1, 2, \ldots, n$ but $i \neq j$,

r_{ik} = correlation coefficient between i^{th} and k^{th} measured variables where $i = 1, 2, \ldots, n$ and $k = 1, 2, \ldots, n$ but $i \neq k$,

r_{jk} = correlation coefficient between the j^{th} and k^{th} measured variables where $j = 1, 2, \ldots, n$ and $k = 1, 2, \ldots, n$ but $j \neq k$,

n = number of measured variables having the same unmeasured underlying variable and uncorrelated residuals and $n \geq 3$.

Duncan further suggests that the reliability of estimate of the standardized regression coefficients increases as the number of items increases. This argument can be extended

so as to estimate the "value" of the underlying variable since in bivariate case:

$$Z_j = \beta_{ij} Z_i$$

and: $Z_i = \beta_{ij} Z_j$

where: Z_i = the Z score of variable i

Z_j = the Z score of variable j

β_{ij} = the standardized regression coefficient defining the relationship of the Z scores of i and j.

Since items comprising a scale are measured at the same point in time, it follows that a single underlying variable would have a unique value and therefore a single Z score. Given several items, the Z score for the underlying variable has several estimates. Since there is but one Z score for the underlying variable the differences between the estimates are assumed to be due to sampling variation. Therefore, the most reliable estimate of the Z score of the underlying variable is the mean of the (N) several estimations.

Such an approach has at least two advantages over better known scaling techniques such as factor analysis. The first is that since the standardized regression coefficient is, in the bivariate case, a correlation coefficient an appropriate test statistic can be employed to determine whether a scale item is linked to the underlying variable to a degree greater than would be expected by chance. The second is that since the score value of unmeasured underlying

variable is measured as Z score. Since the distribution of Z scores for a given sample will have a mean of 0 and a standard deviation of 1, the degree to which the estimated Z scores of individuals on the underlying variable are so distributed will suggest the degree to which this measurement strategy "works" for a particular set of items.

Goal Impedance (X_4). Structured as the mean of twelve Z score estimates for the underlying variable. The underlying variable Z score is estimated from each of the twelve goal blockage items. The Z score is linearly transformed to a standard score intended to have a mean of 50 and standard deviation of 10. The obtained mean is 50.78 and the obtained standard deviation is 10.01 for the overall analysis sample. This scale is intended to index the relative aggregate perceived blockage to educational and occupational success. Table II presents the estimated standardized regression coefficient between the assumed underlying variable and each of the scale items.

Table 2

Estimated Standardized Regression Coefficients Between the Assumed Underlying Variable (Impedance) and Each of the Goal Blockage Items

Goal Blockage Items	β
Financial Difficulties	.363*
The schools attended	.432*
Lack of parental interest	.505*

Goal Blockage Items (Cont.)	β
Racial discrimination	.402*
Unwilling to move	.378*
Scarcity of jobs in U.S.	.519*
Scarcity of jobs in or near community	.439*
No technical school or college nearby	.430*
Inadequate knowledge of opportunity	.591*
Not sufficiently intelligent	.490*
Do not know the right people	.475*
Not willing to try hard enough	.473*

*Coefficient significant at $\alpha = .05$

Socio-economic origin index (X_5). Structured as the mean of the four Z scores estimates of the underlying variable. The four variables from which the Z score of the underlying variable are estimated include residence, father's education, mother's education and father's occupation. The same type of linear transformation as that employed for the goal impedance scale is used in creating this scale. The obtained mean is 50.95 and the obtained standard deviation is 9.99 for the total analysis sample. This scale is intended to index the relative aggregate background of each individual. Table III presents estimates of the standardized regression coefficient between each of the variables and the assumed underlying variable.

Table III

Estimated Standardized Regression Coefficients Between the Assumed Underlying Variable and Each of the Socio-Economic Origin Indicators

Socio-Economic Origin Indicators	β
Residence	.427*
Fathers' Education	.828*
Mothers' Education	.660*
Fathers' Occupation	.785*

*Coefficients significant at $\alpha = .05$

Statistical Analysis

Five techniques of statistical analysis are employed herein. They include path analysis for unmeasured variables, bivariate regression analysis, path analysis, path regression analysis and analysis of covariance. The first technique is used in scaling and is described earlier in this chapter and shall not be discussed in this section. It is, however, worth noting at this point that the unmeasured variable technique employs the same assumption of spurious correlation as does factor analysis. Duncan (1972: 37) in indicating that he does not distinguish between the terms "common cause" and "common factor", implies as much.

Simple Regression Analysis: This statistic is employed to ascertain the relationship between each educational and occupational projection level (fantasy choice, aspiration and expectation) and an aggregate measure called socio-economic status index. Relationships which give "sociological meaning" to these concept are as follows:

$$b_1 < b_2 < b_3$$

and:

$$a_1 > a_2 > a_3$$

where:

b_1 = slope of the regression line for fantasy choice

b_2 = slope of the line for aspirations

b_3 = slope of the line for expectations

a_1 = intercept for fantasy choice and status factor

a_2 = intercept for aspirations and status factor

a_3 = intercept for expectations and status factor

The same relations are predicted for both educational projections and occupational projections.

Path Analysis and Path Regression Analysis: Both techniques are employed in evaluating the theoretical model. Path analysis per se is employed to evaluate the relationship among the variables when the model is applied to the entire analysis sample. Path analysis was developed and first explicated by Wright (1934). Detailed explanations of path analysis protocols and the techniques' application to sociological analysis are presented by Duncan (1966)

and Land (1969). However, when the model is applied to subsamples (e.g., race, sex, race by sex) path regression analysis (Wright, 1971) is employed since path coefficients are sensitive to the variance of the variables being analyzed (Blalock, 1967).

Covariance Analysis: A form of covariance analysis is employed to determine whether the linkages among variables within the model differ among subgroups. The covariance model takes the form:

$$y = f(X_1, X_2, D, DX_1, DX_2)$$

where:

y = dependent variable predicted by X_1 and X_2 (e.g., educational projections),

X_1 = first independent variable predicting y (e.g., fathers education)

X_2 = second independent variable predicting y (e.g., mothers education),

D = dummy variable coded 0, 1 (e.g., race),

DX_1 = product of X_1 and dummy variable for each observation

DX_2 = product of X_2 and dummy variable for each observation

This model is run as a regression model. It's interpretation is straight forward. If the slope associated with the dummy is significant, the intercepts between the two groups differ when y is regressed on X_1 and X_2 for each group. If the slope associated with either of the product

terms is significant then the slopes differ between y and the associated X when y is regressed on X_1 and X_2 separately for the groups represented by the dummy variable. A similar approach is suggested by Harvey (1964). Four covariance models (one for each endogenous or dependent variable) are required to determine differences in the theoretical model between any specified set of subgroups. In the ensuing analysis, the covariance analysis is employed to evaluate differences in the theoretical model between sex groups, race groups, and race by sex groups.

Chapter IV

Analysis of Data

Introduction

This chapter presents an analysis of the data bearing on the measurement and theory questions raised in Chapters I and II. The first set of analysis deals with the relationship of the three levels of projections (fantasy choice, intended aspirations and expectations) for education and vocation to the aggregate measure socio-economic status index. The second set of analyses deals with the relationships hypothesized in the theoretical model developed in the first two chapters of this study. The model is "tested" for the overall sample, race, sex and race by sex subsamples.

For sake of ease of reading and clarity of presentation only those tables which are of primary concern to the analysis shall be included in the chapter. Tables containing supporting data or data allowing for verification of analysis are included in Appendix B.

Analyses of Relations Between Dimensions of Choice and Socio-Economic Origin Index (SEOI)

Table 1 presents data concerning the dimensions of educational and occupational choice as they are individually related to SEOI. The trends among the intercepts and slopes for both educational and occupational projections

appear to conform to that hypothesized in Chapter III (p. 34). Tests statistic to determine whether the differences observed in the trends are greater than one would expect by chance do not currently exist. Therefore, conclusions drawn from this analysis will be proffered tentatively.

Table 1: Intercepts, Regression Coefficients, Zero-Order Correlations Between SEOI and Dimensions of Educational and Occupational Choice and Means of the Dimensions

Projection Domain	Choice Dimension	a	b	r	$\bar{X}$
Education	Fantasy choice	2.47*	.063*	.234*	5.66
	Aspirations	1.11*	.069*	.283*	4.62
	Expectations	.38	.072*	.310*	4.04
Occupation	Fantasy choice	63.20*	.225*	.263*	74.66
	Aspirations	59.57*	.274*	.318*	73.52
	Expectations	55.87*	.314*	.324*	71.88

*Coefficients significant at $\alpha = .05$

Additional evidence can be brought to bear relevant to the hypothesized relationships. The correlation coefficients argue for an increasing strength of relationship to SEOI as one moves from the fantasy choice to expectation dimension for both educational and occupational projections. Further, the means diminish as one moves from the fantasy to the expectation dimension for both occupational and

educational projections. It is sufficient to note at this point that both sets of trends are consistent with the theoretical relations noted earlier.

Figures 1 and 2 present graphically the regression slopes of the three diminsions regressed individually on SEOI for educational projections and occupational projections respectively. Table one indicates that all slopes are statistically greater than zero. However, the graphs indicate that each lower regression line converges on those above it. This trend is, perhaps, more striking among the diminsions of occupational choice (figure 2) than among those of educational choice (figure 1).

A Model of Anticipated Success

Prior to presentation of the results of data analysis for the model, the hypotheses of the model are summarized. They are that the regression coefficients (standardized for the overall sample and unstandardized for subsamples) between:[1]

1. X_1 and $X_2 > 0.$,
2. X_1 and $X_3 = 0.$,
3. X_1 and $X_4 < 0.$,
4. X_1 and $X_5 > 0.$,
5. X_2 and $X_3 > 0.$,

---

[1] All X's are defined on p. 9, Chapter I.

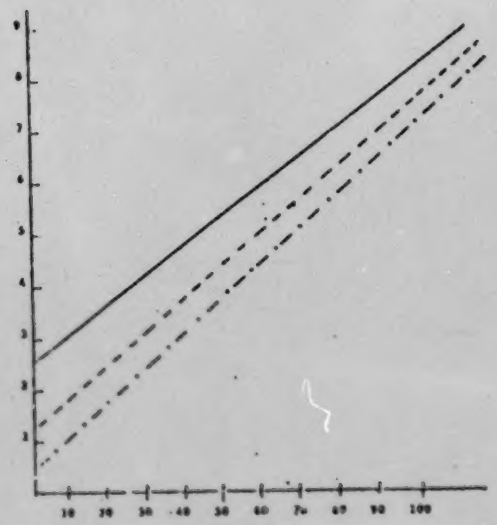


Figure 1: Regression Slopes for Dimensions of Educational Choice Regressed on Socio-Economic Origin Index.

Legend:
- _____ regression line of fantasy choice and SEOI
- ---------- regression line of intended aspirations and SEOI
- _·_·_·_·_ regression line of expectations and SEOI

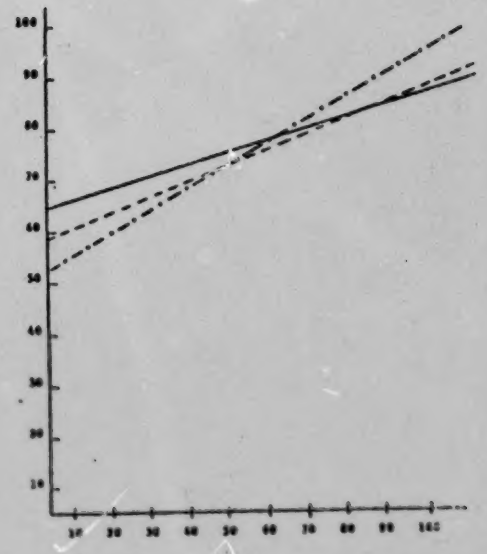


Figure 2: Regression Slopes for Dimensions of Occupational Choice Regressed on Socio-Economic Origin Index.

Legend:
- _____ regression line of fantasy choice and SEOI
- ---------- regression line of intended aspirations and SEOI
- _·_·_·_·_ regression line of expectations and SEOI

6. X_2 and $X_4 < 0.$,
7. X_2 and $X_5 > 0.$,
8. X_3 and $X_5 > 0.$,
9. X_4 and $X_5 < 0.$,

No relationship is hypothesized between X_3 and X_4 and the residuals are assumed uncorrelated.

The General Model: Table 2 presents the means and standard deviations for the total sample for all variables included in the model. This includes those variables comprising the aggregate measure SEOI (X_5). The difference between the means for anticipatory occupational success (X_1) and anticipatory educational success (X_2) is particularly interesting in light of the fact that both are transformed to the same scale range (i.e., 0 - 100). Further, anticipatory educational success (X_2) appears to be characterized by a rather wide variance. Achievement motivation (X_3) and fathers' occupation (X_9), conversely, demonstrate rather narrow variances.

Table 3 presents the results of analysis of the model with SEOI (X_5) aggregated.[2] Inspection of the table

[2]The model with SEOI disaggregated was calculated for the total sample and subsamples. These analyses revealed overall similar results. For example, differences in the multiple coefficient of determination were usually different only at the third decimal place. For this reason, the tables presenting the results of these analyses are included in Appendix B Tables 5b through 20b and shall be referenced only where they aid interpretation.

reveals that all but one of the hypotheses is supported. The failure of SEOI (X_5) to predict achievement motivation (X_3) shall be discussed in the next chapter. The lack of relationship is confirmed by the model with SEOI (X_5) disaggregated in that none of the variables individually predict achievement motivation (X_3). It will be recalled that the residuals of achievement motivation (X_3) and goal impedance (X_4) are assumed to be uncorrelated. If empirically the residuals are shown to be correlated, it would suggest that either the possibility that there is a causal relationship between the two variables in which case the model is misspecified or that a variable which is a common cause of both variables has not been included in the model. The estimated correlation between the residuals is -.011. This value does not obtain significance either in a Students t test for normal distributions or Fisher's Z for skewed distributions (Spiegel, 1961: 263 and 247 respectively). The t value obtained is .572 and the Z value is 1.140. This seems to eliminate either of the conditions suggested above as possible explanations for the lack of relationship between SEOI(X_5) and achievement motivation (X_3).

Table 2:

Means and Standard Deviations for the General Model (N=2715)

Variable	$\bar{X}$	s
X_1	69.93	12.26
X_2	40.17	26.67
X_3	8.49	2.25
X_4	50.78	10.01
X_5	50.95	9.99
X_6	3.75	1.18
X_7	10.96	4.17
X_8	11.07	3.19
X_9	63.63	12.78

Variables are:
X_1 = Anticipatory occupational success
X_2 = Anticipatory educational success
X_3 = California childrens achievement scale score
X_4 = Goal impedance
X_5 = Socio-economic origin index
X_6 = Residence
X_7 = Fathers education
X_8 = Mothers education
X_9 = Fathers occupation

Table 3

Standardized Regression Coefficients and Coefficients of Determination for the General Model with Socio-Economic Origin Indicies Aggregated

Dependent Variable	X_5	X_4	X_3	X_2	R^2
X_4	-.272*	--	--	--	.074*
X_3	.012	--	--	--	.0001
X_2	.271*	-.141*	.170*	--	.144*
X_1	.183*	-.064*	.031	.331*	.205*

*Coefficients significant at $\alpha = .05$.

The coefficients of determination provide additional information concerning the model. Except for that of achievement motivation (X_3), all coefficients are significant. Although none of the coefficients can be considered large in absolute terms this finding is consistent with the earlier contention that the model is "minimal" (Chapter I, p. 9).

Table 4 presents the indirect effects of the model with SEOI (X_5) aggregated. Inspection of the table reveals that very little of the effect of SEOI (X_5) on anticipatory educational success (X_2) is "absorbed" by either achievement motivation (X_3) or goal impedance (X_4). The indirect effect of SEOI (X_5) on anticipatory occupational success

(X_1) is considerably stronger. The total indirect effect is approximately two-thirds of the direct effect. The indirect effect is primarily constituted through anticipatory educational success (X_2). Relative to the direct effect, the indirect effect of goal impedance (X_4) on anticipatory occupational success (X_1) is moderately strong. The finding that the indirect effect of achievement motivation (X_3) on anticipatory occupational success (X_3) is stronger than the direct effect further argues that its effect on that variable is primarily through anticipatory educational success (X_2).

The Model Applied to Race Subsamples: Table 5 reveals the results of the covariance analyses testing for differences in intercepts and slopes in the model between race subsamples. In essence, these analyses test the effects of the predictor variables in the black subsample which are independent of the effects of the same variables for the total sample. When such an effect (within subsamples) is significant, the difference in the related slope between the subsamples may be inferred to be significant.

Examination of Table 5 indicates that two statistically significant differences exist in the model between race subsamples. The differences are between the intercepts for

Table 4: Indirect Effects of Predictor Variables for the General Model

Dependent Variable	Effect	Independent Variable X_5	X_4	X_3
X_2	direct	.271	-.141	.170
	via X_4	.038	--	--
	via X_3	.002	--	--
	total indirect	.040	--	--
X_1	direct	.183	-.064	.031
	via X_4	.017	--	--
	via X_3	.000	--	--
	via X_1	.090	-.047	.056
	via X_4, X_2	.013	--	--
	via X_3, X_2	.001	--	--
	total indirect	.121	-.047	.056

Variables are: X_1 = Anticipatory occupational success
X_2 = Anticipatory educational success
X_3 = California childrens achievement scale score
X_4 = Goal impedance
X_5 = Socio-economic origin index

Table 5:

Covariance Analysis for Black and White Models with Socio-Economic Origin Indicies Aggregated

Independent Variable	Dependent Variable X_4	X_3	X_2	X_1
X_5	-.162*	.019*	1.057*	.287*
X_4	--	--	-.515*	-.122*
X_3	--	--	1.857*	.112
X_2	--	--	--	.152*
X_{10}	5.917*	1.475*	18.804	.120
X_{15}	-.020	-.021	-.213	.051
X_{14}	--	--	.143	.080
X_{13}	--	--	-.289	.155
X_{12}	--	--	--	-.031
α	57.97	7.37	6.50	53.85
R^2	.104	.008	.181	.212

*Coefficients significant at α = .05.

Variables are: X_5 = Socio-economic origin index

X_4 = Goal impedance

X_3 = California childrens achievement scale score

X_2 = Anticipatory educational success

X_1 = Anticipatory occupational success

X_{10} = Race

X_{15} = Race x socio-economic origin index

X_{14} = Race x Goal impedance

X_{13} = Race x California childrens achievement scale score

X_{12} = Race x anticipatory educational success

goal impedance (X_4) and achievement motivation (X_3). In both cases the intercepts are higher for black respondents (Table 7 presents the actual intercepts by race subsample). Most important, the covariance analysis in Table 5 shows that the effects of all variables in the model are similar for both black and white respondents.

Table 6 presents the means and standard deviations of the variables included in the model for each of the race subsamples. It is interesting that the variable demonstrating statistically different intercepts (achievement motivation (X_3) and goal impedance (X_4)) are the only two variable for which blacks have higher means. However, the difference in mean achievement motivation appears negligible. Differences from the overall sample means appear to be slight except for the black subsample means for SEOI (X_5) and fathers' occupation (X_9). As would be expected, for both of the variables the means are lower for the black subsample.

Table 7 presents the model applied to race subsamples. For the white subsample, all hypotheses are statistically confirmed, including the relationship between SEOI (X_5) and achievement motivation (X_3). However, the latter relationship is extremely weak. Within the black subsample,

Table 6: Means and Standard Deviations for Blacks and Whites

Variable	Blacks (N=558)		Whites (N=2157)	
	$\bar{X}$	s	$\bar{X}$	s
X_1	68.37	12.46	70.34	12.18
X_2	39.38	27.88	40.38	26.35
X_3	8.78	2.08	8.41	2.28
X_4	56.48	11.68	49.31	8.96
X_5	40.70	9.25	53.60	8.33
X_6	3.21	1.16	3.89	1.15
X_7	7.46	4.10	11.86	3.68
X_8	8.77	3.69	11.66	2.76
X_9	50.26	10.66	67.09	10.85

Variables are:
X_1 = Anticipatory occupational success
X_2 = Anticipatory educational success
X_3 = California childrens achievement scale score
X_4 = Goal impedance
X_5 = Socio-economic origin index
X_6 = Residence
X_7 = Fathers' education
X_8 = Mothers' education
X_9 = Fathers' occupation

two of the hypotheses are not confirmed. The first is the relationship between SEOI (X_5) and achievement motivation (X_3) as in the general model, the lack of relationship is reflected when SEOI is disaggregated. The second is the relationship between goal impedance (X_4) and anticipatory occupational success (X_1).

Although the covariance analysis does not indicate that any of the slopes in the two models are significantly different, certain observed differences can be argued to be of substantive importance. As compared to the white, the black subsample reflects a stronger effect of SEOI (X_5) on goal impedance (X_4), but a weaker effect of the former on both anticipatory educational success (X_2) and anticipatory occupational success (X_1). If goal impedance is construed as a negative definition of the situation and the success variables as positive definitions of the situation, the above observations can be interpreted as an increase in SEOI which is more effective in reducing the negative definition of the situation for black respondents in contrast to white respondents.

Table 8 presents the indirect effects of the model applied to each race subsample. Both subsamples reflect a stronger indirect effect of SEOI (X_5) on anticipatory occupational success (X_1) than that of SEOI (X_5) on anticipatory educational success (X_2). The black subsample displays a stronger indirect than direct effect of

Table 7:

Unstandardized Regression Coefficients and Coefficient of Determination for Black and White Subsamples with Socio-Economic Origin Indicies Aggregated

Dependent Variable and Race	X_5	X_4	X_3	X_2	a	R^2
Black						
X_4	-.182*	----	----	----	63.88	.021*
X_3	-.002	----	----	----	8.84	.00005
X_2	.844*	-.373*	1.568*	----	12.30	.130*
X_1	.236*	-.041	.267	.121	53.98	.146*
White						
X_4	-.162*	----	----	----	57.97	.023*
X_3	.019*	----	----	----	7.37	.005*
X_2	1.057*	-.515*	1.857*	----	-6.30	.195*
X_1	.287*	-.122*	.112	.152*	53.86	.226*

*Coefficients significant at a = .05.

Variables are: X_1 = Anticipatory occupational success

X_2 = Anticipatory educational success

X_3 = California childrens achievement scale score

X_4 = Goal impedance

X_5 = Socio-economic origin index

goal impedance (X_4) on anticipatory occupational success (X_1) and the reverse was found with regard to the relative effects of achievement motivation (X_3) on anticipatory occupational success (X_1). Inspection of the same sets of relationships in the white subsample reveals that precisely converse conditions exist.

The following summary statements may be made from the preceeding analyses:

1. While the covariance analysis revealed no significant differences in slopes (Table 5), the direct effects were found to be generally stronger in the white subsample (Table 7),
2. Coefficients of multiple determination (Table 7) were all stronger in the white subsample, and
3. Reflecting generally stronger direct effects, total indirect effects were stronger for every variable in the white subsample (Table 8).

These facts lead to the conclusion that the model appears to "work better" for the white subsample than the black.

The Model Applied to Sex Subsamples:

Table 9 contains the covariance analysis for differences in intercepts and slopes between the model applied to sex subsamples. Two intercepts are shown to be significantly different between the subsamples. They are the intercepts for anticipatory educational success (X_2) and

Table 8: Indirect Effects of Predictor Variables by Race Subsamples

Control	Dependent Variable	Effect	Independent Variables X_5	X_4	X_3
BLACK	X_2	direct	.844	-.373	1.568
		via X_4	.068	--	--
		via X_3	-.003	--	--
		total indirect	.065	--	--
	X_1	direct	.236	-.041	.267
		via X_4	.007	--	--
		via X_3	-.001	--	--
		via X_2	.102	-.045	.190
		via X_4, X_2	.008	--	--
		via X_3, X_2	.000	--	--
		total indirect	.117	-.045	.190
WHITE	X_2	direct	1.057	-.515	1.857
		via X_4	.083	--	--
		via X_3	.035	--	--
		total indirect	.118	--	--
	X_1	direct	.287	-.122	.112
		via X_4	.020	--	--
		via X_3	.002	--	--
		via X_2	.161	-.078	.282
		via X_4, X_2	.013	--	--
		via X_3, X_2	.005	--	--
		total indirect	.201	-.078	.282

Variables defined in Table 4.

anticipatory occupational success (X_1). Table 9 also reveals that four of the slopes of the model are statistically different between the subsample. These include the relationship between:

1. SEOI (X_5) and anticipatory educational success (X_2),
2. SEOI (X_5) and anticipatory occupational success (X_1),
3. achievement motivation (X_3) and anticipatory occupational success (X_1), and
4. anticipatory educational success (X_2) and anticipatory occupational success (X_1).

Table 10 presents the means and standard deviations of the variables by subsample. Inspection of this table leads to the conclusion that the means are not appreciably different. Except for the variable anticipatory occupational success (X_1) in which case the standard deviation for males is nearly twice that for females, very little difference between standard deviations were found in the comparison by sex subsamples.

Table 11 presents the unstandardized effects within the model by sex subsamples. Two of the original hypotheses fail to find support among female respondents. The first is found in the lack of relationship between SEOI (X_5) and

Table 9:

Covariance Analysis for Female and Male Models with Socio-Economic Origin Indicies Aggregated

Independent Variable	Dependent Variable X_4	X_3	X_2	X_1
X_5	-.265*	-.000	.441*	.144*
X_4	--	--	-.330*	-.038
X_3	--	--	1.827*	.117
X_2	--	--	--	.084*
X_{20}	1.007	.596	-20.331*	-18.273*
X_{25}	-.015	.003	.549*	.156*
X_{24}	--	--	-.093	-.064
X_{23}	--	--	.083	.395*
X_{22}	--	--	--	.133*
α	64.21	8.15	17.05	62.21
R^2	.074	.026	.161	.280

*Coefficients significant at $\alpha = .05$.

Variables are: X_5 = Socio-economic origin index

X_4 = Goal impedance

X_3 = California childrens achievement scale score

X_2 = Anticipatory educational success

X_{20} = Sex

X_{25} = Sex x Socio-economic origin index

X_{24} = Sex x Goal impedance

X_{23} = Sex x California childrens achievement scale score

X_{22} = Sex x anticipatory educational success

Table 10: Means and Standard Deviations for Females and Males

Variable	Females (N=1402)		Males (N=1313)	
	$\bar{X}$	s	$\bar{X}$	s
X_1	71.65	7.96	68.11	15.40
X_2	37.39	24.79	43.14	28.24
X_3	8.13	2.13	8.86	2.31
X_4	50.81	9.95	50.75	10.08
X_5	50.45	9.87	51.48	10.10
X_6	3.79	1.14	3.70	1.22
X_7	10.77	4.05	11.15	4.28
X_8	10.88	3.16	11.26	3.22
X_9	62.87	12.84	64.44	12.66

Variables are:
X_1 = Anticipatory occupational success
X_2 = Anticipatory educational success
X_3 = California childrens achievement scale score
X_4 = Goal impedance
X_5 = Socio-economic origin index
X_6 = Residence
X_7 = Fathers' education
X_8 = Mothers' education
X_9 = Fathers' occupation

achievement motivation (X_3). The second is the lack of relationship between goal impedance (X_4) and anticipatory occupational success (X_1). Two of the original hypotheses failed to be confirmed for male respondents also. As with female respondents, the relationship between SEOI (X_5) and achievement motivation (X_3) failed to attain statistical significance. Differing from the female subsample, the relationship between achievement motivation (X_3) and anticipatory occupational success (X_1) is statistically significant. This is contrary to the original hypotheses and suggests that for the male respondents the effect of achievement motivation (X_3) on anticipatory occupational success (X_1) is not totally absorbed by anticipatory educational success (X_2). The reader is reminded that this relationship (X_3 X_1) is one of the four in which the slopes are significantly different between the subsamples.

It is worth noting that in addition to the differences observed in the covariance analysis, all effects are of greater magnitude in the male subsample. Additionally, the multiple coefficients of determination are consistently larger in the male subsample except for achievement motivation (X_3), in which case, the coefficient is zero to the third decimal place for both subsamples.

Table 11:

Unstandardized Regression Coefficients and Coefficient of Determination for Female and Male Subsamples with Socio-Economic Origin Indicies Aggregated

Dependent Variable and Sex	X_5	X_4	X_3	X_2	α	R^2
Female						
X_4	-.265*	----	----	----	64.20*	.069*
X_3	-.000	----	----	----	8.15*	.000
X_2	.441*	-.330*	1.827*	----	17.05*	.084*
X_1	.144*	-.038	.117	.084*	62.21*	.135*
Male						
X_4	-.281*	----	----	----	65.21*	.080*
X_3	.002	----	----	----	8.75*	.000
X_2	.990*	-.423*	1.910*	----	-3.28	.206*
X_1	.300*	-.102*	.512*	.217*	43.94*	.303*

*Coefficients significant at $\alpha = .05$.

Variables are: X_1 = Anticipatory occupational success

X_2 = Anticipatory educational success

X_3 = California childrens achievement scale score

X_4 = Goal impedance

X_5 = Socio-economic origin index

The indirect effects of the model for the two subsamples are presented in Table 12. As in both the general model and race comparisons, relatively little of the effect of SEOI (X_5) on anticipatory educational success (X_2) is absorbed for either the male or female respondents. Comparing the subsamples for the indirect effect of SEOI (X_5) on anticipatory occupational success, it is apparent that the male subsample demonstrates a much stronger effect both absolutely and relative to the direct effect. Inspection of the indirect effect of goal impedance (X_4) on anticipatory occupational success (X_1) reveals that in both subsamples it is small, but slightly larger relative to the direct effect within the male subsample. Conversely, the indirect effect of achievement motivation (X_3) on anticipatory occupational success (X_1) while actually smaller for female respondents, represents greater absorption for that group in that the indirect effect exceeds the direct effect. The latter case is not true for male respondents, but the total effect of achievement motivation (X_3) on anticipatory occupational success (X_1) is greater for this group.

When the model and relevant analyses are applied to sex subsamples, the following findings emerge:

1. direct effects are consistently stronger in the male subsample, four of the nine statistically so,

Table 12: Indirect Effects of Predictor Variables for Sex Subsamples.

Control	Dependent Variable	Effect	Independent Variables X_5	X_4	X_3
FEMALE	X_2	direct	.441	-.330	1.827
		via X_4	.087	--	--
		via X_3	.000	--	--
		total indirect	.087	--	--
	X_1	direct	.144	-.038	.117
		via X_4	.010	--	--
		via X_3	.000	--	--
		via X_2	.037	-.028	.153
		via X_4, X_2	.001	--	--
		via X_3, X_2	.000	--	--
		total indirect	.054	-.028	.153
MALE	X_2	direct	.990	-.432	1.910
		via X_4	.121	--	--
		via X_3	.004	--	--
		total indirect	.125	--	--
	X_1	direct	.300	-.102	.512
		via X_4	.029	--	--
		via X_3	.001	--	--
		via X_2	.215	-.092	.414
		via X_4, X_2	.026	--	--
		via X_3, X_2	.001	--	--
		total indirect	.272	-.092	.414

Variables defined in Table 11.

2. as a consequence of the above, indirect effects are consistently stronger in the male model, but when compared to direct effects it is not clear that the model is more "efficient" when applied to the male subsample,
3. with one exception the multiple coefficients of determination are consistently stronger for the male subsample, and
4. relatively little difference exists between the subsamples with regard to variable means.

These findings suggest that the model "works" slightly better for male respondents.

The Model Applied to Race-Sex Subsamples: Table 13 presents the covariance analyses of differences of slopes and intercepts in the models by race-sex subsamples. Since there are four models but only one degree of freedom for the race-sex interaction in the covariance analyses, interpretation of significant effects in the covariance analyses can only be made by reference to the analyses of the model per se as it is applied to each of the subsamples. The analyses of covariance indicates that three slopes in the model are statistically different between subsamples. The differences relate to the effect of SEOI (X_5) on anticipatory occupational success (X_1), the effect of goal impedance (X_4) on anticipatory educational success

(X_1), the effect of goal impedance (X_4) on anticipatory educational success (X_2), and the effect of goal impedance (X_4) on anticipatory occupational success (X_1). Inspection of Table 15 suggest that first significant difference mentioned above lies in the degree to which the X_1, X_5 effect for black male respondents exceeds the same effect for white female respondents and exceeded by the effect for white male respondents. The latter two significant differences are both comprised in the fact that the effects referenced (X_2, X_4 and X_1, X_4) are of the least magnitude for the black male subsample.

Table 14 presents the means and standard deviations of the variables by race-sex subsample. Several observations seem worth mentioning at this point. The first is that very little difference in either the mean or dispersion of achievement motivation (X_3) exists between the subsamples. The second is that females in both race subsamples demonstrate larger means and smaller standard deviations for anticipatory occupational success (X_1) than their male counterparts. The third is that the same trend does not hold with regard to anticipatory educational success (X_2). Finally, the means for goal impedance (X_4), SEOI (X_5) and the variables comprising SEOI (X_6 - X_9, residence, fathers education, mothers education and fathers occupation respectively) consistently reveal greater differences across race than across sex. Though less

Table 13

Covariance Analysis for Black Female, Black Male, White Female, and White Male Models with Socio-Economic Origin Indicies Aggregated

Independent Variable	Dependent Variable X_4	X_3	X_2	X_1
X_5	-.142*	.019*	.829*	.141*
X_4	--	--	-.441*	-.031
X_3	--	--	1.511*	.027
X_2	--	--	--	.094*
X_{10}	4.143	1.530*	21.267	-2.071
X_{15}	.033	-.021	-.058	.080
X_{14}	--	--	-.039	-.046
X_{13}	--	--	.212	.414
X_{12}	--	--	--	-.043
X_{20}	2.502	.800	-9.821	-19.779*
X_{25}	-.038	-.001	.425*	.254*
X_{24}	--	--	-.159	-.135*
X_{23}	--	--	.183	.424*
X_{22}	--	--	--	.116*
X_{30}	3.836	.069	-20.718	2.075
X_{35}	-.112	.002	-.244	-.237*
X_{34}	--	--	.468*	.206*
X_{33}	--	--	-.019	-.252
X_{32}	--	--	--	.029
a	56.70*	7.00	1.54	62.32
R^2	.106	.036	.200	.287

*Coefficients significant at $\alpha = .05$.

Table 13 Continued

Variables are:

X_5 = Socio-economic origin index

X_4 = Goal impedance

X_3 = California childrens achievement scale score

X_2 = Anticipatory educational success

X_1 = Anticipatory occupational success

X_{10} = Race

X_{15} = Race x socio-economic origin index

X_{14} = Race x goal impedance

X_{13} = Race x California childrens achievement scale score

X_{12} = Race x anticipatory educational success

X_{20} = Sex

X_{25} = Sex x socio-economic origin index

X_{24} = Sex x goal impedance

X_{23} = Sex x California childrens achievement scale score

X_{22} = Sex x anticipatory educational success

X_{30} = Race x Sex

X_{35} = Race x Sex x socio-economic origin index

X_{34} = Race x Sex x goal impedance

X_{33} = Race x Sex x California childrens achievement scale score

X_{32} = Race x Sex x anticipatory educational success

striking and less consistent, a similar trend holds with regard to the dispersion about those means.

Table 15 presents the intercepts and slopes of the model for each subsample. Among black female respondents, three of the original nine hypotheses failed to receive support. They are the hypotheses concerning:

1. the effect of SEOI (X_5) on goal impedance (X_4),
2. the effect of SEOI (X_5) on achievement motivation (X_3),
3. the effect of goal impedance (X_4) and anticipatory occupational success (X_1).

Three hypotheses failed to receive confirmation in the black male subsample. These include:

1. the effect of SEOI (X_5) on achievement motivation (X_3),
2. the effect of goal impedance (X_4) on anticipatory educational success (X_2),
3. the effect of goal impedance (X_4) on anticipatory occupational success (X_1).

For white female respondents one hypothesis was not supported. It concerns the effect of goal impedance (X_4) on anticipatory occupational success (X_1). However, the effect of SEOI (X_5) on achievement motivation (X_3) is extremely weak in the subsample. One hypothesis was not supported for the male subsample, also. In this case, the effect of achievement motivation (X_3) on anticipatory

Table 14: Means and Standard Deviations for Black Females, Black Males, White Females and White Males

Variable	Black Females (N=332)		Black Males (N=226)		White Females (N=1070)		White Males (N=1087)	
	$\bar{X}$	s	$\bar{X}$	s	$\bar{X}$	s	$\bar{X}$	s
X_1	70.72	8.93	64.92	15.72	71.93	7.61	68.77	15.25
X_2	40.63	27.32	37.53	28.65	36.39	23.88	44.31	28.03
X_3	8.46	1.94	9.24	2.19	8.03	2.18	8.78	2.32
X_4	56.37	11.32	56.64	12.22	49.09	8.80	49.53	9.11
X_5	40.77	8.64	40.59	10.11	53.46	8.15	53.74	8.50
X_6	3.23	1.14	3.19	1.19	3.96	1.09	3.81	1.20
X_7	7.59	3.97	7.27	4.30	11.76	3.54	11.96	3.81
X_8	8.78	3.55	8.74	3.88	11.54	2.72	11.78	2.79
X_9	49.93	9.96	50.73	11.63	66.88	10.83	67.29	10.88

Variables are: X_1 = Anticipatory occupational success
X_2 = Anticipatory educational success
X_3 = California childrens achievement scale score
X_4 = Goal impedance
X_5 = Socio-economic origin index
X_6 = Residence
X_7 = Fathers' education
X_8 = Mothers' education
X_9 = Fathers' occupation

occupational success (X_1) was statistically significant As in the white female subsample, the effect of SEOI (X_5) on achievement motivation (X_3) is significant, but extremely weak.

Inspection of table 15 reveals certain relationships of substantive interest. Black male respondents are more sensitive to social origins as a source of perceived goal blockage (the X_4, X_5 effect) than any other subsample. Somewhat surprising in light of the former is the fact that black male respondents least predicate their anticipated educational success on perception of impediments (the X_2, X_4 effect). Also of interest is the fact that subsample differences of the effect of anticipatory educational success (X_2) on anticipatory occupational success (X_1) show greater differences across sex than across race. Overall, direct effects are strongest in the white male subsample, second strongest in the black male subsample and approximately the same for the black and white female subsamples.

Review of the multiple coefficients of determination indicate that they are strongest for white male respondents except for the variable achievement motivation (X_3). Further, male subsamples, with the exception noted above, both display stronger multiple coefficients of determination than either female subsample. Though achievement motivation (X_3) has a statistically significant multiple

Table 15

Unstandardized Regression Coefficients and Coefficients of Black Females, Black Males, White Females and White Males Subsamples with Socio-Economic Origin Indicies Aggregated

Dependent Variable and Race	X_5	X_4	X_3	X_2	α	R
Black Females						
X_4	-.110	----	----	----	60.84*	.007
X_3	-.002	----	----	----	8.53*	.000
X_2	.771*	-.500*	1.723*	----	22.81	.124*
X_1	.221*	-.077	.441	.051*	60.25*	.119*
Black Males						
X_4	-.259*	----	----	----	67.18*	.046*
X_3	-.001	----	----	----	9.27*	.000
X_2	.952*	-.190	1.886*	----	7.73	.154*
X_1	.238*	-.006	.612	.197*	42.54*	.208*
White Females						
X_4	-.142*	----	----	----	56.70*	.017*
X_3	.019*	----	----	----	7.00*	.005*
X_2	.829*	-.441*	1.511*	----	1.54	.144*
X_1	.141*	-.031	.027	.094*	62.31*	.145*
White Males						
X_4	-.180*	----	----	----	59.20*	.028*
X_3	.018*	----	----	----	7.00*	.004*
X_2	1.254*	-.599*	1.693*	----	-8.28	.239*
X_1	.394*	-.166*	.451*	.210*	42.54*	.325*

*Coefficients significant at $\alpha = .05$.
Variables defined in Table 11

coefficient of determination for white male and female respondents, it is negligible in terms of variance explained.

Table 16 presents indirect effects by race-sex subsamples. Consistent with earlier findings, SEOI (X_5) exerts relatively little indirect effect on anticipatory educational success (X_2) across all subsamples. The indirect effect of SEOI (X_5) on anticipatory occupational success (X_1) is stronger, both absolutely and relatively to the direct effect, for the male subsamples than either of the female subsamples. The indirect effect of goal impedance (X_4) on anticipatory occupational success (X_2) exceeds the direct effect only in the white female subsample. Further, this indirect effect in the female subsample is second in absolute value to that in the male subsample. The same relationship is true of the indirect effect of achievement motivation (X_3) on anticipatory occupational success (X_1) except that, in absolute terms, the value for white female respondents is less than that for both groups of male respondents.

From the above analyses the following observations may be extracted:

1. white male respondents generally display stronger direct effects, indirect effects and multiple coefficients of determination than any other subsample,
2. male respondents generally display stronger direct and indirect effects and multiple coefficients of determination than their female counterparts,

Table 16: Indirect Effects of the Predictor Variables for Race-Sex Subsamples.

Control	Dependent Variable	Effect	Independent Variables X_5	X_4	X_3
BLACK FEMALES	X_2	direct	.771	-.500	1.723
		via X_4	.055	--	--
		via X_3	-.003	--	--
		total indirect	.052	--	--
	X_1	direct	.221	-.077	.441
		via X_4	.008	--	--
		via X_3	-.001	--	--
		via X_2	.039	-.026	.088
		via X_4, X_2	.003	--	--
		via X_3, X_2	.000	--	--
		total indirect	.049	-.026	.088
BLACK MALES	X_2	direct	.952	-.190	1.886
		via X_4	.049	--	--
		via X_3	-.002	--	--
		total indirect	.047	--	--
	X_1	direct	.238	-.006	.612
		via X_4	.002	--	--
		via X_3	-.001	--	--
		via X_2	.188	-.037	.372
		via X_4, X_2	.010	--	--
		via X_3, X_2	.000	--	--
		total indirect	.199	-.037	.372

Table 16 Continued

Control	Dependent Variable	Effect	Independent Variables X_5	X_4	X_3
WHITE FEMALES	X_2	direct	.829	-.441	1.511
		via X_4	.063	--	--
		via X_3	.029	--	--
		total indirect	.092	--	--
	X_1	direct	.141	-.031	.027
		via X_4	.004	--	--
		via X_3	.001	--	--
		via X_2	.078	-.041	.142
		via X_4, X_2	.006	--	--
		via X_3, X_2	.003	--	--
		total indirect	.092	-.041	.142
WHITE MALES	X_2	direct	1.254	-.599	1.693
		via X_4	.108	--	--
		via X_3	.030	--	--
		total indirect	.138	--	--
	X_1	direct	.394	-.166	.451
		via X_4	.030	--	--
		via X_3	.008	--	--
		via X_2	.263	-.126	.356
		via X_4, X_2	.023	--	--
		via X_3, X_2	.006	--	--
		total indirect	.330	-.126	.356

Variables defined in Table 11.

3. black male respondents generally have slightly stronger direct effects, stronger indirect effects in half the cases and stronger multiple coefficients of determination than white female respondents.

These observations lead to two general conclusions. First, the model developed for analysis in this study appears to describe the process of the formation of success orientation best for white males. Second, this model generally describes the process for males better than females. The following chapter will attempt an elaboration of these results in light of the empirical and theoretical state of the art in this area. Additionally, limitations of the study, along with ideas for future empirical and theoretical inquiry will be addressed.

Chapter V

Summary, Conclusions

Introduction

In essence, this work might be characterized as a feasibility study. Put another way, it attempts to assess the potential of an alternate theoretical formulation to the aspiration formation process. The latter has been shown by Sewell, Haller and Portes (1969) to be of considerable utility in explaining status attainment as they define it.[1] To the degree that the new model "works," it represents a potential alternate explanation of the status attainment process.

Employment of the term "alternate" to the skeletal model developed and tested herein is not intended to impute total invalidity to the former work. It is alternate in the sense that it seeks to replace certain variables as they are currently operationalized and add other variables not included in the model (for specification of the "Wisconsin Model" see: Sewell, Haller and Portes, 1969). On

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[1] For detailed explications of the concept "status attainment process" see: Sewell and Hauser (1972) and Haller and Portes (1973). The relationship of the model developed in this work to the model developed by Sewell and his associates extends to the aspiration link. Though attainment data is not presented herein, explanation of status attainment is integrally linked to aspirations. As Haller and Woelfel (1969:5) have stated: "It is safe to say that the evidence of an important relationship between educational and occupational aspirations and educational and occupational attainment is substantial."

the other hand, many of the same exogenous variables are presently incorporated in both models. Further, it is entirely probable that certain variables included in the earlier model such as significant other influence and grade point average will be included in a fuller elaboration of the alternate model. The task of inclusion is primarily one of temporal specification.

Perhaps the primary importance of the model developed and analyzed in this study is that it attempts to replace the psychologistic variables of educational and occupational aspirations with anticipatory educational and occupational success variables. The latter are by definition and operationalization "definition of the situation" variables. These variables possess the conceptual advantage of clarity of meaning and the theoretical advantage of an *a priori* specification of temporal sequence steming from the Mertonian means-end distinction. The theoretical specification does not, however, obviate the necessity of empirical evaluation, but this process comes full circle in allowing one to draw inferences concerning a theoretical perspective of some standing.[2] The task that remains herein is to evaluate the results of the analyses of the previous chapter.

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[2]This evaluation is beyond the data of this dissertation but is a necessary step in the total process of evaluating the model.

Summary of Findings

Specific observations were drawn from each of the sets of related analys s throughout Chapter IV. These shall not be reiterated here. It is the purpose of this section to provide an integrative summary which will serve as a foundation for the conclusions drawn in the next section.

Though inference is limited by the lack of an appropriate test-static, the findings concerning the relationship of each of the dimensions of educational and occupational choice to the aggregate index of socio-economic origin appears to warrant an operationalization such as the anticipatory success one which accounts for the apparently interactive character of the dimensions. Sumarily, the trends for both educational and occupational choice are:

1. a decreasing intercept as one moves from fantasy choice to expectations,
2. an increasing slope as one moves from fantasy choice to expectations,
3. an increasing correlation as one moves from fantasy choice to expectations, and
4. a decreasing mean as one moves from fantasy choice to expectation.

This leads to consideration of the model which includes the anticipatory success variables.

Table 1 presents a summative integration of some of the major findings of the analyses. Inspection of the

table reveals that seven of the original nine hypothesis are generally supported for the total sample and across subsamples.

The hypothesized relationship ($\beta_{1,4} < 0$) between goal impedance and anticipatory occupational success appears to hold for white male respondents only. It seems likely that support of the relationship in the total sample, the white subsample and the male subsample stems primarily from the fact that the relationship holds for the white male subsample. Conversely, the white male respondents appear to be the only group for whom the hypothesized relationship ($\beta_{13} = 0$) between achievement motivation and anticipatory occupational success does not hold.

The hypothesised relationship ($\beta_{3,5} > 0$) socio-economic origin and achievement motivation is simply not supported. Even in the subsamples where the effect is statistically significant, it is so weak that the inference of substantive importance is difficult. This finding reveals a major hiatus in the model. Its implications shall be taken up in the next section.

The reader is reminded that the conclusion was stated that the model appeared to work better for the black male than the white female respondents. While such a conclusion may appear incongruous in light of the fact that eight of nine hypotheses were supported for white female respondents

Table 1: Summary Table of Hypothesized Relationships and Empirical Results By Control Categories and for Total Analysis Sample.

Hypothesis	Total Sample	Race Sub-samples		Sex Sub-samples		Race-Sex Subsamples				# of times Hypothesis Supported
		Black	White	Female	Male	Black Females	Black Males	White Females	White Males	
$\beta_{1,2} > 0$	1	1	1	1*	1*	1	1	1	1	9
$\beta_{13} = 0$	1	1	1	1*	0*	1	1	1	0	7
$\beta_{14} < 0$	1	0	1	0	1	0*	0*	0*	1*	4
$\beta_{15} > 0$	1	1	1	1*	1*	1*	1*	1*	1*	9
$\beta_{23} > 0$	1	1	1	1	1	1	1	1	1	9
$\beta_{24} < 0$	1	1	1	1	1	1*	0*	1*	1*	8
$\beta_{25} > 0$	1	1	1	1*	1*	1	1	1	1	9
$\beta_{35} > 0$	0	0	1	0	0	0	0	1	1	3
$\beta_{45} < 0$	1	1	1	1	1	0	1	1	1	8
# Hypothesis Supported	8	7	9	7	7	6	6	8	8	

Note: 1 indicates the original hypothesis was statistically supported by the analysis, 0 indicates it was not.

*indicates slopes among subsamples significantly different at $\alpha = .05$.

and only six of nine for black male respondents, the conclusion is based on three other facts. The first is that black male respondents display stronger direct effects than white female respondents in all cases except the three relationships which are not supported for the black male subsample. The second is that analysis of indirect effects fails to conclusively delineate the relative "efficiency" of the model between the two subsamples. Finally, the multiple coefficients of determination are stronger for black male respondents in three of four cases.

Finally, the reader is reminded the coefficients of multiple determination for anticipatory educational and occupational success were significant for the total sample and all subsamples. The coefficients were significant for goal impedance in all analyses except that for black female respondents. Two cases in which the multiple coefficients of determination for achievement motivation were significant statistically were so small as to be negligible.

Conclusions

Implications for Current Theoretical and Empirical Research:

The failure of the analysis to support the relationship between SEOI and achievement motivation raises several questions which shall be addressed in the following discussion. In Chapter III it was indicated that the achievement

motivation variable as instrumented and operationalized herein appeared weak. The consistency with which the hypothesized relationships between achievement motivation and anticipatory educational and occupational success are supported makes it appear improbable that the measure of the variable is invalid. None-the-less, the caveat in Chapter III should remain a sensitizing frame of reference in the following discussion.

Earlier it was stated that McClelland (1961, 362) had shown that the relationship between socio-economic status and n achievement is somewhat curvelinear. In his review of the relationship between achievement motivation and academic performance, Lavin (1965, 74-76) reports correlations between achievement motivation and academic performance (GPA) from various studies, some employing projective techniques, others employing questionnaire instrumentation to measure achievement motivation. In the studies he reports, the relationship to grade point average is consistently stronger when projective techniques are employed suggesting that questionnaire type instrumentation generally taps achievement motivation less well than projective type instrumentation. Given this, and McClelland's report, the probability of a significant linear relationship between socio-economic status and achievement motivation measured by questionnaire type instrumentation may very well approach zero. However, this does not

necessarily lead to the further inference that the model is invalidated or that the achievement motivation concept should be eliminated when one attempts to build such models. It can as easily be construed as a point of departure for the further elaboration of the present model.

It can be shown, abstractly, that a model can be constructed and its conditions specified in such a manner that the relationship observed between socio-economic status and achievement motivation obtains. The relationship described by McClelland (1961, 362) is one in which n achievement increases as socio-economic status increases until the middle class is reached. At that point, n achievement then begins to decrease but not as rapidly as it at first increased. The following model with conditions will produce such a result.

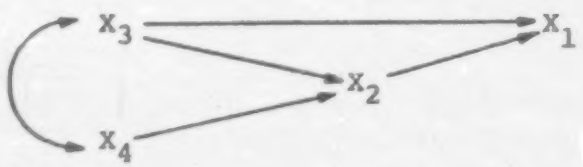


Figure 1: Model in which the direct relationship between X_1 and X_4 describes the direct relationship observed between socio-economic status and n achievement

The minimum necessary conditions within the model are as follows:

1. $\beta_{12} > 0$,
2. $\beta_{13} < 0$,
3. $\beta_{23} < 0$,
4. $\beta_{24} > 0$, and
5. $\beta_{34} < 0$ (this relationship is to be taken as descriptive rather than causal)

where:

β_{ij} = slope of the regression in the population.

Farther, the betas must stand in certain relationship to one another. They are:

1. $|\beta_{34}| > |\beta_{23}|$
2. $|\beta_{24}| > |\beta_{23}|$, and
3. $|\beta_{12}| > |\beta_{13}|$

where:

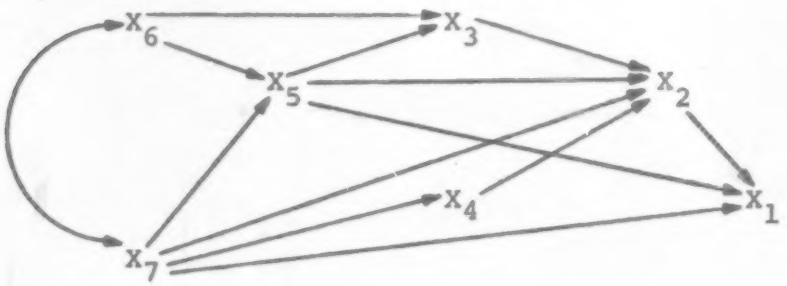
$|\beta_{ij}|$ = the absolute value of the beta.

The result of such a configuration is that the rate of increase in X_2 decreases as X_4 increases. The result of this is that as X_4 increases, X_1 increases initially then peaks and begins to decrease. To fully reproduce the relationship between socio-economic status and n achievement, the conditions specified above must obtain within certain limits. However, it is beyond the scope of this dissertation to specify those limits. It is sufficient here to indicate that a set of conditions are possible which will explain the relationship.

Two works provide information which suggest the content of the model provided in Figure 1. The first is Lavin's (1965, 146-147) survey of the relationships between number of siblings, socio-economic status and I.Q. The studies which he surveys report a negative relationship between number of siblings and both socio-economic status and I.Q. He reports one study which finds that the negative relationship between number of siblings and I.Q. holds even when socio-economic status is controlled. The second is a recent study by Sewell and Hauser (1972, 856) in which they find a significant causal relationship between socio-economic status indicators and I.Q. The above findings together suggest that content may be given to the model in figure 1. The elaboration of the model is weakest inferentially at the point formulating relationships between intelligence and achievement motivation and number of siblings and achievement motivation. Crandall (1969, 100-101) in surveying research on the relationship between intelligence and achievement motivation reports mixed results. While some studies suggest the existence of the relationship, others fail to find it. The picture is by no means conclusive. The only evidence that could be identified herein which has implications for the number of siblings-achievement motivation relationship is reviewed by Turner (1969, 122). He reports a single study in which a negative relationship was found between family size

and ambition. These latter two relationships are, consequently, more nearly assumptions than inferences from prior theory and research. On the other hand, the relationships are still "open" to empirical validation or refutation.

The elaborated model is presented in figure 2.



where:

X_1 = anticipatory occupational success

X_2 = anticipatory educational success

X_3 = achievement motivation

X_4 = goal impedance

X_5 = I.Q.

X_6 = number of siblings

X_7 = aggregate measure of socio-economic origins

Figure 2: Elaborated model of anticipatory success

Returning to the original model of this dissertation, two additional observations are pertinent. First, in addition to the relationship between SEOI and achievement

motivation, the hypothesized relationship between goal impedance and anticipatory occupational success was not generally supported. However, this does not particularly detract from the model in that the direct effect was hypothesized primarily on the nature of the items comprising the index (see: Chapter III, 13). The operation means-end distinction is, in fact, suggested by the failure to confirm the relationship. Second, all other hypotheses were generally supported.

It is this author's opinion that the results of the study and the foregoing discussion lead to at least two conclusions. The first is that the results of the study are sufficiently promising to warrant replication of the original anticipatory success model and testing of the elaborated model presented in Figure 2. The second is that the implications of this work for theoretical and empirical research are not yet clear. The implications are contained in the result of future work. Validation of a model of anticipatory success would represent a challenge to current theorizing concerning the status attainment process. Failure to establish a model would cut off one more unfruitful avenue of research. A third possibility is that this work represents the development of less ambiguous variables (anticipatory educational and occupational success) to replace the aspiration variables currently employed in the status attainment models. This possibility must, however,

await empirical evaluation of the relationship of the success variables to attainment.

Limitations of the Study

Throughout the presentation of this work, limitations and relevant caveats have been indicated. At this point, thou, limitations of the study shall be presented summarily.

Most important is the fact that the study cannot be extrapolated beyond the sample analyzed. This is due to a combination of respondents lost due to missing data and the exploratory nature of the theoretical model analyzed. The measurement of achievement motivation also places limitations on the study. The inability of this study to definitively establish its validity warrants caution in interpretation of the relations ascertained between this variable and others. In general, the newness of the model itself, of certain variables employed in the model and of certain techniques employed herein as well as the results of the analysis of the model all argue that any conclusions suggested herein are tentative pending replication and extension.

Finally, the method of analysis utilized in this study impose limitations with regard to the specific configuration of variable relationships. That is, path analytic theory does not presently allow the researcher to incorporate interaction effects or deal with relationships that are

non-linear. However, findings based on an extensive analysis of the status attainment model by Gasson, Haller and Sewell (1972) imply that this limitation may be less critical than one is, at first, inclined to think. Further, in agreement with the authors (Gasson, Haller, and Sewell, 1972:35) the simpler additive model is the more effective tool for theory building in its early stages than the more precise but complex mathmetical models.

Suggestions for Future Research

The results of this dissertation suggest further research is required in two broad areas. These are the areas of theoretical-empirical research and of measurement. In the area of theoretical-empirical research the following research efforts are suggested:

1. Replication of the original model,
2. Testing of the elaborated model,
3. Exploration of the possibility of alternate forms of elaboration of the model, and
4. Testing whether "success" variables are better predictors of attainment than the aspiration variables used currently in the status attainment models.

In the area of measurement the work of this dissertation suggests the following research:

1. Extension and refinement of the technique for estimation of Z scores for unmeasured variables, and

2. Development and validation of a more powerful measurement of achievement motivation than currently exists.

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Appendix A

Instrumentation and Scoring of Source Variables of Analysis

The variables employed in this dissertation, either in scaling or direct analysis, are presented below with the associated instrumentation scoring code for response alternatives.

1. Occupational Fantasy Choice:

Now we would like some information about your occupational future. We all have ideas about jobs we would like to have if we were completely free to choose our own occupation. We would like to know what job you would like to have if you could choose any job in the world? In other words, what is your "dream" job? (In answering this question give an exact job. For example, do not say "work for the government", say "President of the United States" or "Senator." Write your answer in the box below).

ANSWER: [ ]

a.) For this job, would you be (circle one number):

1. self-employed 2. employed by someone else

b.) What kind of place would this job be in? _____

Scoring ranges from 1 - 100. The appropriate NORC score is assigned to the occupation indicated in the box above.

2. Intended Occupational Aspirations:

Now we would like to know what job you desire and will attempt to attain as a lifetime job? (Write your answer in the box below. Please give an exact job).

ANSWER: [ ]

a.) For this job, would you be (circle one number).

1. self-employed 2. employed by someone else

b.) What kind of place would this job be in? _____

Coded in the same manner as occupational fantasy choice.

3. Occupational Expectations:

Sometimes we are not able to do what we desire. Taking all the facts of your job future into consideration including your own personal ability and the opportunities you really think you have, what job do you <u>really expect</u> to have most of your life? (Write your answer in the box below. Please give an exact job).

ANSWER: [ ]

a.) For this job, would you be (circle one number):

1. self-employed 2. employed be someone else

b.) What kind of place would this job be in?_____

Coded in the same manner as occupational fantasy choice.

4. Educational Fantasy Choice:

How much education would you desire to have if you were <u>completely free</u> to get any amount you wanted? (See <u>Box A and write</u> one number from it in the blank below):

_____

From a complete list of school grades (first grade to Ph.D.) the following responses were coded:

0 = None after high school
1 = Vocational-technical school
2 = Some college
4 = Bachelors degree
6 = Masters degree
8 = Doctorate

5. Intended Educational Aspiration:

How much education do you desire and will actively attempt to get? (See Box A and write one number from it in the blank below):

_____

Coded in the same manner as educational fantasy choice.

6. Educational Expectations:

Sometimes we are not able to achieve what we desire. Taking all the factors of your educational future into consideration, (personal abilities, opportunities, money available, etc.), how much education do you really expect to get? (See Box A and write one number from it in the blank below):

_____

Coded in the same manner as educational fantasy choice.

7. Goal Impedance:

Note: All twelve items comprising the scale are listed below and the score value of the response alternatives are presented with each item.

How much effect do you think each of the following things will have in keeping you from getting the job you desire?

Very Much	Much	Some	Not At All	
4	3	2	1	Not enough money to go to technical school or college
4	3	2	1	The schools I have gone to
4	3	2	1	Lack of parents' interest
4	3	2	1	Racial discrimination
4	3	2	1	Don't want to move
4	3	2	1	Good jobs are getting too scarce in the U.S.
4	3	2	1	Lack of good job opportunities in or near my community
4	3	2	1	No technical school or college nearby
4	3	2	1	Don't know enough about the opportunities that exist
4	3	2	1	Not smart enough
4	3	2	1	I do not know the "right" people
4	3	2	1	I will not try hard enough

8. Achievement Motivation (Children's Achievement Scale).

Note: The twenty items of the scale are listed consecutively below and score values are indicated beside response alternatives.

Listed below are a number of statements concerning attitudes you may hold. FOR EACH QUESTION CIRCLE THE ONE ANSWER YOU FEEL BEST DESCRIBES YOUR OPINION:

1. I prefer:

   0 = working with others
   1 = working by myself

2. I prefer jobs:

   1 = that I might not be able to do
   0 = which I'm sure I can do

3. I would rather learn:

   0 = fun games
   1 = games where I would learn something

4. I prefer a game:

   0 = where I'm better than anyone else
   1 = where everyone is about the same

5. I would rather:

   0 = wait one or two years and have my parents buy me one big present
   1 = have them buy me several smaller presents over the same period of time

6. I would rather:

   1 = play a team game
   2 = play against just one other person

7. When I am sick, I would rather:

   0 = rest and relax
   1 = try to do my homework

8. I:

   1 = like giving reports before the class
   0 = don't like giving reports before the class

9. Before class tests I am:

   0 = often nervous
   1 = hardly ever nervous

10. When I am playing in a game or sport I am:

    0 = more interested in having fun than with winning
    1 = more interested in winning

11. When I am sure I can do a job:

    0 = I enjoy doing it more
    1 = I become bored

12. When I play a game:

    0 = I hate to lose
    1 = I love to win

13. After Summer vacation, I am:

    1 = glad to get back to school
    0 = not glad to get back to school

14. I talk in class:

    0 = less than other students
    1 = more than other students

15. I enjoy sports more when I play against:

    1 = one other player
    0 = several other players

16. If I were getting better from a serious illness, I would like to:

    1 = spend my time learning to do something
    0 = relax

17. I like playing a game when I am:

    1 = as good as my playmate
    0 = much better than my playmate

18. I would prefer classes in which:

    1 = the students were all as good as one another at the work
    0 = I was better than almost all the others

19. When I do things to help at home, I prefer to:

0 = do usual things I know I can do
1 = do things that are hard and I'm not sure I can do

20. I would choose as work-partners:

1 = other children who do well in school
0 = other children who are friendly

9. Residence:

Note: Score values are indicated beside response alternatives:

Where have you lived most of your life? (Circle one number):

5 = A large city (over 100,00)
4 = A small city (2,500 to 100,000)
3 = Town or village (under 2,500)
2 = In the country, but not on a farm
1 = On a farm

10. Father's Education:

Note: Score values indicated beside response alternatives:

What was the highest school grade completed by your father? (Circle one number):

0 = Did not go to school
1 = First grade
2 = Second grade
3 = Third grade
4 = Fourth grade
5 = Fifth grade
6 = Sixth grade
7 = Seventh grade
8 = Eighth grade
9 = Ninth grade
10 = Tenth grade
11 = Eleventh grade
12 = Twelfth grade
13 = Completed vocational-technical school graduate
14 = Some college, but did not graduate
16 = Graduated from college
17 = Graduated from college and has completed graduate work
18 = Graduated from college and has received a master's degree
20 = Has a graduate or professional degree (Ph.D., M.D., Lawyer)

11. Mother's Education:

Note: Question 11 in the questionnaire referred to father's education. This variable (mother's education) is coded in the same manner as father's education.

What was the highest school grade completed by your mother? (Write one number from the list in Question 11): _____

12. Father's Occupation:

What is your father's occupation? (Write your answer in the following box. Give the specific job. For example, say carpenter, not construction worker. This question refers to his present job if your father is employed or his last job if your father is unemployed):

ANSWER: [ ]

a.) Is or was your father (circle one number):

1. self-employed 2. employed by someone else

b.) What kind of place does your father work in (for example teacher in high school or college, etc., or laborer in chemical plant or sawmill or construction, etc.):

_____

Coded in the same manner as occupational fantasy choice.

13. Race:

Note: This variable was employed as a control variable in analysis. Code values are indicated below.

What is your race? (Circle one number):

0 = white 1 = black

14. Sex:

Note: This variable was also employed as a control. Code values are indicated below:

Sex (Circle one number):

0 = female 1 = male

Appendix B

Table 1b: Zero-Order Correlation Matrix of Analysis Items for Respondents Retained in the Analysis Sample

Table 2b: Missing Data Zero-Order Correlation Matrix of Analysis Items for Respondents Not Retained in the Analysis Sample

Table 3b: Inter-item Correlations for Childrens' Achievement Scale*

Table 4b: Inter-item Correlations for Goal Impedance Scale*

Table 5b: Zero-Order Correlations Among Variables of Model for the Total Sample

Table 6b: Standardized Regression Coefficients and Coefficients of Determination for the General Model with Socio-economic Status Indicies Disaggregated

Table 7b: Zero-Order Correlations of Variables in the Model for Blacks*

Table 8b: Zero-Order Correlations of Variables in the Model for Whites*

Table 9b: Unstandardized Regression Coefficients and Coefficients of Determination for Black and White Subsamples with Socio-Economic Status Indicies Disaggregated

Table 10b: Covariance Analysis for Black and White Models with Socio-Economic Status Indicies Disaggregated

Table 11b: Zero-Order Correlations of Variables in the Model for Females*

Table 12b: Zero-Order Correlations of Variables in the Model for Males*

Table 13b: Unstandardized Regression Coefficients and Coefficients of Determination for Female and Male Subsamples with Socio-Economic Status Indicies Disaggregated

Table 14b: Covariance Analysis for Female and Male Models with Socio-Economic Status Indicies Disaggregated

Table 15b: Zero-Order Correlations of the Variables in the Model for Black Females*

Table 16b: Zero-Order Correlations of the Variables in the Model for Black Males*

Table 17b: Zero-Order Correlations of the Variables in the Model for White Females*

Table 18b: Zero-Order Correlations of the Variables in the Model for White Males*

Table 19b: Unstandardized Regression Coefficients and Coefficients of Black Females, Black Males, White Females and White Males Subsamples with Socio-Economic Status Indicies Disaggregated

Table 20b: Covariance Analysis for Black Female, Black Male, White Female and White Male Models with Socio-Economic Status Indicies Disaggregated

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Table 1b: Zero-Order Correlation Matrix of Analysis Items for Respondents Retained in the Analysis Sample

	1	2	3	4	5	6	7	8	9
1	1.00000								
2	-0.03698	1.00000							
3	0.04582	0.32231	1.00000						
4	0.05906	0.25706	0.59862	1.00000					
5	0.07424	0.07565	0.21255	0.20644	1.00000				
6	0.13488	0.10335	0.25554	0.27480	0.71405	1.00000			
7	0.11744	0.11663	0.28975	0.28809	0.61448	0.83695	1.00000		
8	0.09673	0.00240	0.09888	0.09174	0.07476	0.07702	0.06961	1.00000	
9	0.10862	0.05637	0.06803	0.08418	0.13018	0.13385	0.11308	0.08546	1.00000
10	0.05657	-0.09355	-0.12982	-0.11875	0.00946	-0.00710	-0.02963	-0.04538	0.01110
11	-0.07928	-0.02772	-0.02055	-0.03945	-0.07209	-0.08116	-0.09353	-0.09159	0.01722
12	0.10328	0.03001	-0.00443	-0.00017	0.06164	0.06453	0.06173	0.03218	0.04461
13	-0.01197	0.05652	0.08710	0.06605	0.05861	0.05205	0.06355	0.20843	0.08548
14	-0.01567	-0.12892	-0.13475	-0.11070	0.01571	0.00208	-0.00257	0.02562	0.01736
15	-0.00336	0.00480	0.04782	0.03749	0.18766	0.20418	0.19679	-0.01341	0.08188
16	0.18290	-0.03437	0.07267	0.05772	0.08606	0.09919	0.11884	0.08027	0.06192
17	0.23321	-0.11670	-0.12543	-0.07694	0.00420	0.03683	0.02642	0.00978	-0.06143
18	0.13023	0.06198	0.12285	0.14495	0.13490	0.15603	0.16212	0.11655	0.38693
19	0.13670	-0.03252	0.01588	0.02573	0.03145	0.05380	0.02608	0.04317	0.00344
20	-0.10288	0.02967	-0.04229	-0.06391	0.13157	0.11115	0.08334	-0.05169	0.03885
21	-0.00187	0.06903	0.07860	0.07129	0.02633	0.02920	0.04326	-0.02497	0.03104
22	0.00503	0.03493	0.08601	0.05911	0.04437	0.03652	0.04506	0.18998	0.05026
23	-0.08488	-0.04791	-0.03708	-0.03048	0.08012	0.05249	0.03115	-0.00588	0.05350
24	-0.06449	0.02234	0.02969	0.02030	0.01550	-0.00685	-0.01167	-0.04402	0.03665
25	-0.06497	0.02435	-0.00604	-0.02053	-0.04689	-0.06354	-0.06718	-0.11507	0.01126
26	0.11857	-0.04586	0.00731	0.00597	0.11599	0.09201	0.07270	0.05535	0.24181
27	0.01503	-0.02006	-0.03470	-0.01446	0.06880	0.08426	0.08036	-0.01083	-0.02050
28	0.06160	0.37568	0.61774	0.48972	0.19541	0.20827	0.22919	0.09640	0.08746
29	0.02753	0.18301	0.21818	0.18271	0.38936	0.38690	0.36091	0.06939	0.08758
30	0.01827	0.20091	0.26151	0.23661	0.42163	0.49240	0.48418	0.05039	0.08618
31	-0.09897	0.21424	0.26812	0.23994	0.37627	0.44368	0.48181	0.04834	0.09266
32	-0.07999	-0.22971	-0.42692	-0.36629	0.01529	0.03434	0.02368	-0.09863	-0.12060
33	0.00248	-0.08207	-0.21614	-0.21435	0.03379	-0.00580	-0.10022	-0.03981	0.00299
34	-0.00644	-0.03400	-0.05091	-0.01676	-0.03436	-0.02249	-0.02500	-0.01426	-0.01021
35	-0.05882	-0.05411	-0.13019	-0.14012	-0.07394	-0.11038	-0.10197	-0.02253	-0.01827
36	-0.00992	-0.11142	-0.17615	-0.12305	-0.01925	-0.00575	-0.02565	-0.01705	-0.05904
37	0.01294	-0.03208	-0.07977	-0.08404	-0.11354	-0.11484	-0.11867	-0.03518	-0.04029
38	-0.02131	-0.04088	-0.13548	-0.12385	-0.13162	-0.14543	-0.16347	-0.01936	-0.05164
39	-0.06835	-0.15661	-0.18046	-0.14039	-0.04729	-0.08543	-0.12244	-0.01911	-0.05832
40	0.00743	-0.13065	-0.14777	-0.15361	-0.09759	-0.08854	-0.09224	-0.04831	-0.02168
41	0.03200	-0.02493	-0.09116	-0.07338	-0.04505	-0.07317	-0.10642	-0.00490	-0.00721
42	-0.02202	-0.01255	-0.05264	-0.08035	-0.09141	-0.10204	-0.12473	-0.03927	-0.04712
43	0.06105	-0.02248	-0.10684	-0.10700	-0.05802	-0.06653	-0.12301	-0.00385	-0.01352
44	0.05054	-0.03045	-0.08161	-0.12218	-0.09170	-0.07418	-0.07432	-0.04761	-0.01322

Table 1b Continued

	10	11	12	13	14	15	16	17	18
10	1.00000								
11	0.08058	1.00000							
12	0.03274	-0.07047	1.00000						
13	-0.04593	-0.05501	0.02640	1.00000					
14	0.14103	0.00646	-0.00338	-0.02131	1.00000				
15	0.06106	-0.06147	0.01834	0.02727	0.08849	1.00000			
16	-0.04340	-0.00901	0.03313	0.04955	-0.04926	0.05041	1.00000		
17	0.06008	-0.14899	0.01918	-0.02866	0.00617	0.04184	-0.01832	1.00000	
18	-0.03111	-0.02573	0.07872	0.09391	-0.02804	0.06664	0.10253	-0.02391	1.00000
19	0.01464	-0.07497	-0.00485	0.00718	0.00452	-0.03654	0.01281	0.10204	0.07303
20	0.12954	0.03310	-0.00317	-0.07750	0.09406	0.16984	-0.01113	-0.02417	-0.01516
21	-0.10239	-0.02169	0.02087	0.01411	-0.08453	0.10963	0.07238	-0.00816	0.07469
22	-0.04814	-0.06656	0.03549	0.63616	-0.01427	0.04868	0.04961	-0.03223	0.08000
23	0.17299	0.04779	0.01284	-0.02913	0.21937	0.13154	-0.05811	-0.08180	0.00035
24	0.04568	0.36362	-0.03219	-0.03325	0.00319	-0.01199	-0.03418	-0.12053	-0.00671
25	0.05992	0.29887	-0.04761	-0.06826	0.01256	-0.05850	-0.01402	-0.09506	-0.02260
26	0.06559	-0.02746	0.03551	0.03463	0.11083	0.08508	0.01118	-0.00246	0.15036
27	0.08049	-0.08921	0.02817	-0.00863	0.03437	0.06747	-0.05194	0.09149	-0.02751
28	-0.16010	-0.00997	0.00680	0.07597	-0.14936	-0.00173	0.08204	-0.14693	0.10831
29	-0.04036	-0.03743	0.04707	0.04301	-0.04930	0.11768	0.02943	-0.03573	0.13646
30	-0.04777	-0.03694	0.04607	0.05289	-0.04012	0.12124	0.05561	-0.07551	0.14063
31	-0.05036	-0.02158	0.01997	0.06939	-0.02880	0.13484	0.05437	-0.10499	0.12014
32	0.16043	-0.08679	0.06340	-0.06090	0.22069	0.13298	-0.10598	0.17727	-0.09189
33	0.04872	0.03547	0.02951	-0.02203	0.07843	-0.01009	-0.05882	0.06174	-0.03869
34	0.02031	-0.00445	-0.00458	-0.00106	0.02293	0.00425	-0.05336	0.06065	0.02254
35	0.01254	-0.02850	0.01935	-0.00596	0.05662	-0.00603	-0.09756	0.04915	-0.03704
36	0.08164	-0.04107	0.00758	-0.02662	0.07928	0.04329	-0.07454	0.11416	-0.02659
37	0.03283	-0.00568	0.02427	-0.00673	0.03648	-0.01554	-0.04849	0.05085	-0.01424
38	0.03666	-0.02476	0.02466	-0.00514	0.04649	-0.03128	-0.12344	0.05888	-0.05026
39	0.05895	-0.03604	0.03428	-0.01170	0.08921	0.01157	-0.09481	0.07430	-0.03458
40	0.07367	-0.01458	-0.00214	-0.02950	0.05953	-0.00992	-0.05776	0.05349	-0.04598
41	-0.01590	-0.03385	0.06748	0.00601	0.00857	-0.03017	-0.06970	0.01278	0.01779
42	-0.03037	0.02420	-0.00974	-0.04084	-0.01714	-0.07814	-0.10927	0.02598	-0.03780
43	0.00453	-0.01944	0.04320	-0.01428	-0.00306	-0.05933	-0.08374	0.10107	-0.00249
44	0.00286	-0.02289	0.05755	-0.00338	0.03748	-0.02378	-0.03793	0.06993	0.01924

Table 1b Continued

	19	20	21	22	23	24	25	26	27
19	1.00000								
20	-0.02533	1.00000							
21	0.00435	-0.00057	1.00000						
22	0.03000	-0.07412	0.01764	1.00000					
23	-0.06253	0.16595	-0.11195	-0.04122	1.00000				
24	-0.06921	0.07207	-0.05601	-0.02805	0.08195	1.00000			
25	-0.02640	0.03751	-0.03595	-0.08621	0.05832	0.29170	1.00000		
26	0.02036	0.02903	-0.01754	0.00032	0.14328	0.00165	-0.05174	1.00000	
27	0.02343	0.06056	0.00188	-0.00643	0.03623	-0.04330	-0.04526	0.01220	1.00000
28	-0.03337	-0.02110	0.09404	0.03901	-0.06672	0.03781	-0.00349	0.00141	-0.01377
29	0.00383	0.08709	0.05093	0.02887	0.03662	-0.00861	-0.00080	0.06679	0.05643
30	-0.00852	0.08424	0.04788	0.01339	0.03090	0.00790	-0.00309	0.04434	0.00132
31	-0.01110	0.08614	0.05158	0.03792	0.02563	0.00828	0.01632	0.02910	0.05381
32	0.00221	0.05633	-0.02590	-0.04458	0.11401	-0.08017	-0.03966	-0.00927	0.10608
33	0.03179	0.04494	-0.06276	-0.01216	0.10408	0.03318	0.02888	-0.00542	0.00527
34	-0.00153	-0.01014	0.01702	0.00935	0.04614	-0.00888	-0.00960	0.00849	-0.01539
35	0.00647	0.01773	-0.00206	-0.00898	0.07646	-0.03688	-0.01387	0.00028	-0.01454
36	0.00944	0.01524	-0.00348	-0.00340	0.03861	-0.01039	-0.01471	-0.01235	0.03127
37	0.01288	-0.00007	0.01344	0.02488	0.04939	-0.02442	0.00660	-0.01901	0.02560
38	-0.00342	-0.01603	-0.01005	-0.02074	0.02475	-0.03236	-0.01654	-0.01429	0.00185
39	0.00716	-0.00173	-0.03967	-0.00777	0.05698	-0.03458	0.01117	0.00191	0.01590
40	0.02543	-0.01230	-0.04826	-0.03857	0.04571	-0.04546	-0.02302	0.01952	0.04594
41	-0.02162	-0.02263	-0.05162	-0.00651	0.07615	-0.02511	-0.03734	0.02957	-0.03106
42	0.01886	-0.01969	-0.01988	-0.04795	0.02709	-0.02116	-0.00828	-0.02109	-0.01238
43	0.01269	-0.01699	-0.05803	-0.00044	0.02838	-0.03681	-0.01736	0.00180	-0.00915
44	0.03930	-0.01856	-0.00825	0.01773	0.00910	-0.06362	-0.02583	-0.00204	0.01404

	28	29	30	31	32	33	34	35	36
28	1.00000								
29	0.22732	1.00000							
30	0.27522	0.63802	1.00000						
31	0.27545	0.49941	0.71782	1.00000					
32	-0.53253	-0.07378	-0.06902	-0.05438	1.00000				
33	-0.20461	-0.01682	-0.03664	-0.07776	0.15185	1.00000			
34	-0.08844	-0.02338	-0.03060	-0.03872	0.07412	0.13645	1.00000		
35	-0.15262	-0.06495	-0.08932	-0.09883	0.15352	0.24105	0.24871	1.00000	
36	-0.23110	-0.05433	-0.06979	-0.05505	0.35739	0.12124	0.18175	0.19674	1.00000
37	-0.09125	-0.06863	-0.07296	-0.08944	0.10304	0.05952	0.14692	0.21259	0.15897
38	-0.13763	-0.06576	-0.09876	-0.12629	0.15373	0.11793	0.15257	0.17588	0.22485
39	-0.21127	-0.06543	-0.08608	-0.09723	0.25954	0.18209	0.14404	0.12050	0.23586
40	-0.18700	-0.09384	-0.10461	-0.10768	0.26651	0.15265	0.17858	0.19334	0.19115
41	-0.07677	-0.03363	-0.04938	-0.11261	0.07620	0.20942	0.17129	0.23094	0.11605
42	-0.06715	-0.03181	-0.07235	-0.11276	0.04579	0.17513	0.16953	0.23703	0.14172
43	-0.09264	-0.04348	-0.05402	-0.09584	0.08294	0.17870	0.15388	0.19089	0.15602
44	-0.11072	-0.06145	-0.06507	-0.08578	0.15171	0.12083	0.16838	0.28236	0.11481

Table 1b Continued

	37	38	39	40	41	42	43	44
37	1.00000							
38	0.21529	1.00000						
39	0.16402	0.42577	1.00000					
40	0.18697	0.23555	0.26604	1.00000				
41	0.16041	0.29947	0.27334	0.22341	1.00000			
42	0.19898	0.23484	0.12567	0.17517	0.31848	1.00000		
43	0.16308	0.27529	0.25211	0.15921	0.39091	0.27282	1.00000	
44	0.27801	0.22517	0.08914	0.21304	0.26394	0.41249	0.17220	1.00000

Tables 1b and 2b contain the same set of variables which are as follows:

X_1 = Residence
X_2 = Fathers' Education
X_3 = Mothers' Education
X_4 = Educational Fantasy Choice
X_5 = Intended Educational Aspiration
X_6 = Educational Expectations
X_7 = Grade point average
X_8 = Item 1 California Achievement Scale
X_9 = Item 2 California Achievement Scale
X_{10} = Item 3 California Achievement Scale
X_{11} = Item 4 California Achievement Scale
X_{12} = Item 5 California Achievement Scale
X_{13} = Item 6 California Achievement Scale
X_{14} = Item 7 California Achievement Scale
X_{15} = Item 8 California Achievement Scale
X_{16} = Item 9 California Achievement Scale
X_{17} = Item 10 California Achievement Scale
X_{18} = Item 11 California Achievement Scale
X_{19} = Item 12 California Achievement Scale
X_{20} = Item 13 California Achievement Scale
X_{21} = Item 14 California Achievement Scale
X_{22} = Item 15 California Achievement Scale
X_{23} = Item 16 California Achievement Scale
X_{24} = Item 17 California Achievement Scale
X_{25} = Item 18 California Achievement Scale
X_{26} = Item 19 California Achievement Scale
X_{27} = Item 20 California Achievement Scale
X_{28} = Fathers' Occupation
X_{29} = Occupational Fantasy Choice
X_{30} = Intended Occupational Aspiration
X_{31} = Occupational Expectations
X_{32} = Race
X_{33} = Item 1 of Goal Impedance
X_{34} = Item 2 of Goal Impedance
X_{35} = Item 3 of Goal Impedance
X_{36} = Item 4 of Goal Impedance
X_{37} = Item 5 of Goal Impedance
X_{38} = Item 6 of Goal Impedance
X_{39} = Item 7 of Goal Impedance
X_{40} = Item 8 of Goal Impedance
X_{41} = Item 9 of Goal Impedance
X_{42} = Item 10 of Goal Impedance
X_{43} = Item 11 of Goal Impedance
X_{44} = Item 12 of Goal Impedance

Table 28: Missing Data Zero-Order Correlation Matrix of Analysis Items for Respondents Not Retained in the Analysis Sample

	1	2	3	4	5	6	7	8	9
1	1.00000								
2	-0.11251	1.00000							
3	-0.02941	0.39273	1.00000						
4	0.02430	0.23442	0.60044	1.00000					
5	0.03417	0.13675	0.20457	0.16125	1.00000				
6	0.02871	0.09378	0.22006	0.23554	0.63281	1.00000			
7	0.07337	0.06560	0.20361	0.21247	0.54599	0.76570	1.00000		
8	0.06370	0.01363	-0.04141	0.03247	-0.01302	-0.01026	0.02723	1.00000	
9	0.12057	0.05184	0.11637	0.03597	0.12229	0.15308	0.15037	0.07571	1.00000
10	0.00886	-0.14398	-0.14015	-0.11049	0.07818	0.08458	0.07467	-0.01105	0.10308
11	-0.20700	0.03199	0.00049	0.00456	-0.05257	-0.04953	-0.09551	-0.03752	-0.07048
12	0.06528	-0.02890	-0.00716	0.01369	0.06770	0.07707	0.09448	0.02007	0.08544
13	-0.02143	0.09298	0.05976	0.03868	0.04104	0.03697	-0.00958	0.22023	0.04738
14	0.04396	-0.08822	-0.10943	-0.11522	0.03635	0.07050	0.03562	0.05957	0.05561
15	-0.06962	0.00931	-0.07171	-0.05235	0.12943	0.17563	0.19177	-0.00907	-0.01926
16	0.19947	-0.03820	0.03091	0.03932	0.09006	0.08187	0.11223	0.05926	0.00901
17	0.14528	-0.10427	-0.09940	-0.08735	0.07043	-0.02860	0.03529	-0.08705	0.01987
18	0.11816	0.10764	0.17679	0.10846	0.05390	0.08781	0.09687	0.11273	0.36676
19	0.06322	-0.02983	-0.07992	-0.07323	0.02328	0.04451	0.00773	0.05504	-0.05101
20	-0.03461	0.00162	-0.05784	-0.01609	0.20851	0.[illegible]362	0.18291	-0.05713	0.08372
21	0.05647	0.07337	0.07352	-0.00507	0.04056	0.01189	0.00426	-0.06769	-0.00209
22	-0.00454	0.02131	0.03939	0.02406	0.01486	0.01513	-0.00822	0.08479	0.08948
23	-0.04824	0.07208	-0.03190	-0.03260	0.02339	0.02978	0.08113	-0.01800	0.07441
24	-0.13062	0.10128	0.03927	0.09608	0.00443	0.00138	-0.04663	-0.05560	0.02134
25	-0.10995	0.04153	-0.02278	-0.01363	-0.07889	-0.00344	0.03542	-0.05112	-0.01386
26	0.12952	0.06729	0.04939	0.04233	0.07548	0.03064	0.03461	[illegible].06404	0.20738
27	0.03690	-0.08227	-0.08058	-0.07516	0.02649	0.08502	0.11887	[illegible].04361	0.08738
28	-0.05934	0.40515	0.59921	0.52127	0.16242	0.22429	0.16048	-0.02139	0.08173
29	-0.12798	0.19655	0.19345	0.25100	0.30236	0.24645	0.23649	-0.02667	0.04169
30	-0.13386	0.21492	0.24176	0.27033	0.32669	0.36636	0.30198	-0.09153	0.06382
31	-0.22516	0.21231	0.23427	0.25428	0.87115	0.39202	0.32909	-0.09546	0.09664
32	0.03717	-0.31098	-0.43741	-0.38406	0.01665	0.04008	0.02976	-0.04828	-0.04337
33	-0.08452	0.00504	-0.03804	-0.042[illegible]	0.09489	0.05013	-0.00521	0.05246	0.12280
34	-0.03000	0.05843	0.00225	-0.01258	0.04691	0.03[illegible]84	0.05147	0.09479	-0.00207
35	-0.11348	0.00850	-0.02501	-0.03713	-0.04417	-0.03975	-0.06478	0.09460	0.00795
36	-0.06000	0.04790	-0.02240	-0.02720	-0.00710	0.02280	0.03494	0.04769	-0.05258
37	0.09435	-0.12742	-0.08528	-0.11468	-0.14119	-0.13042	-0.09184	-0.02569	-0.07856
38	0.04110	-0.09646	-0.09583	-0.09819	-0.13102	-0.10815	-0.12905	0.10045	0.03709
39	0.03180	-0.11976	-0.15564	-0.05927	0.05479	0.03964	0.03577	0.08122	-0.08368
40	0.06853	-0.01341	-0.06718	-0.11809	0.03355	-0.01298	-0.00162	-0.00963	-0.06108
41	-0.06500	0.12105	0.09909	0.08895	0.05859	0.04880	0.01358	0.06178	-0.06171
42	0.03459	-0.17196	-0.07669	0.00255	0.04349	-0.06850	-0.08386	-0.00308	-0.08047
43	0.14297	-0.00122	0.00931	0.02798	0.03108	0.01172	-0.02857	0.09348	-0.01862
44	0.09308	-0.09989	-0.06573	-0.08499	-0.05229	-0.08194	-0.08955	0.00134	-0.04574

Table 2b Continued

	10	11	12	13	14	15	16	17	18
10	1.00000								
11	0.03543	1.00000							
12	-0.05755	-0.14842	1.00000						
13	-0.02431	0.00528	0.04613	1.00000					
14	0.13357	0.01037	0.02272	0.10543	1.00000				
15	0.08412	-0.05636	0.06454	-0.05947	0.09845	1.00000			
16	-0.04576	-0.13522	0.11715	0.00477	-0.06017	0.03654	1.00000		
17	0.12489	-0.19504	-0.03780	0.02608	0.02243	0.09087	-0.04129	1.00000	
18	-0.01298	-0.01137	0.05996	0.09965	0.01960	0.02465	0.03481	-0.00066	1.00000
19	-0.02991	-0.09923	0.03496	0.02230	0.09919	-0.00844	-0.02582	0.07575	-0.00127
20	0.21165	0.04604	0.07166	-0.05253	0.15449	0.18127	-0.02330	0.04125	0.04629
21	-0.11787	-0.00549	-0.01764	-0.00169	-0.01765	0.07584	0.08799	-0.02059	0.12435
22	-0.07309	-0.00362	0.01970	0.40722	-0.04473	-0.00556	-0.02543	0.02659	0.06858
23	0.16485	0.04789	0.09521	0.03400	0.19154	0.05553	-0.08990	-0.06784	0.04615
24	0.05167	0.41605	-0.07934	-0.00428	-0.03250	-0.03690	-0.08652	-0.17241	-0.04652
25	0.10832	0.21950	-0.04523	-0.05055	0.01540	0.08384	-0.06989	-0.17773	-0.10730
26	0.09857	-0.07211	0.03370	0.07875	0.17676	0.04548	0.01838	0.00210	0.20416
27	0.15488	-0.07355	0.06731	-0.11093	0.02494	0.06052	0.01582	0.16774	0.04732
28	-0.18197	0.05259	-0.02391	0.08464	-0.14110	-0.04618	0.06280	-0.15502	0.11519
29	-0.01552	-0.01052	0.07163	-0.02348	-0.05973	0.07572	0.09098	-0.03215	0.05413
30	0.02176	0.02225	0.04335	0.04036	-0.03838	0.09425	0.04705	-0.03669	0.06389
31	0.05921	0.09012	-0.00897	0.04054	-0.06184	0.10757	-0.00711	-0.06071	0.10254
32	0.23650	-0.12566	-0.00649	-0.15059	0.19373	0.21605	-0.05701	0.25091	-0.07221
33	0.09200	0.06036	-0.01497	0.02831	-0.02540	0.01359	0.00705	-0.07896	0.00659
34	-0.07359	-0.02151	-0.04433	0.04824	0.01679	0.00912	-0.06023	-0.00540	0.00429
35	-0.03500	0.03257	-0.00552	0.00392	-0.06736	0.00668	-0.11678	-0.01766	-0.02378
36	-0.03917	-0.00477	-0.03064	-0.05101	-0.05152	-0.01110	0.03638	-0.04083	-0.02128
37	0.12397	-0.09954	0.01151	-0.05561	0.09118	-0.06165	-0.05596	0.06646	0.02412
38	0.04411	-0.00585	-0.06210	-0.03345	-0.00370	-0.10077	-0.09842	0.01208	0.01667
39	0.01998	-0.06989	-0.08446	-0.04990	0.02617	0.04683	-0.07496	-0.05852	-0.06977
40	0.01179	-0.03422	0.00523	0.00483	0.07715	0.05096	-0.06143	0.08103	0.03284
41	-0.07135	0.02931	-0.00203	0.01820	-0.01024	-0.03164	-0.08370	-0.10120	-0.01398
42	0.04136	-0.05932	-0.05640	0.02267	0.04165	-0.08522	-0.13842	0.04143	-0.09000
43	0.01629	-0.11823	0.06465	0.00915	0.04189	-0.00615	-0.04538	0.01307	-0.03910
44	-0.07533	-0.08801	-0.01383	-0.04452	-0.03112	-0.03215	-0.05637	0.10318	-0.07757

Table 2b Continued

	19	20	21	22	23	24	25	26	27
19	1.00000								
20	-0.04415	1.00000							
21	-0.02453	0.00051	1.00000						
22	0.07110	-0.01306	-0.04311	1.00000					
23	-0.02089	0.19563	-0.05406	-0.01940	1.00000				
24	-0.10852	0.05543	-0.03024	0.00604	0.06961	1.00000			
25	-0.06699	0.04016	-0.16595	-0.03906	0.09529	0.32753	1.00000		
26	-0.06932	0.07841	0.10778	0.04954	0.07857	-0.05468	-0.03935	1.00000	
27	-0.03171	0.08559	-0.06689	-0.01050	0.08615	-0.06007	-0.01769	0.05396	1.00000
28	-0.06701	-0.08959	0.08205	0.06554	0.00542	0.12027	0.05109	0.00235	-0.12998
29	-0.01338	0.09631	-0.02463	-0.01642	0.04346	0.01009	0.01321	0.02569	-0.01882
30	-0.06487	0.15986	-0.02179	0.01397	0.07532	0.02502	-0.01189	0.07143	-0.07286
31	0.02133	0.10611	-0.07425	0.05772	0.08070	0.01959	0.04277	0.01608	-0.03453
32	0.06255	0.11599	-0.08852	-0.07338	0.01589	-0.19272	-0.04481	0.04391	0.21231
33	0.02746	0.02521	0.01121	0.12826	0.01273	0.04964	-0.03750	0.05547	0.02832
34	0.02356	-0.02022	0.01704	0.03575	-0.06259	-0.03830	-0.05922	0.08378	-0.03922
35	0.10865	-0.02595	-0.01614	0.09346	-0.07382	0.01962	0.00037	-0.02055	-0.08937
36	0.04732	-0.03515	0.02005	0.03547	0.01031	-0.06946	-0.00268	-0.01107	-0.03121
37	0.08733	-0.03210	0.07879	0.09490	0.00764	-0.06845	-0.09192	-0.06012	0.00225
38	0.07799	-0.06504	0.03117	0.01785	-0.00542	-0.07269	-0.04496	-0.07204	0.04178
39	0.04376	-0.01045	0.02594	0.00674	-0.00834	-0.05071	0.02751	0.05677	0.06197
40	-0.05819	0.02392	0.07729	-0.00910	-0.01435	-0.00582	-0.05022	0.11274	0.08915
41	0.03555	-0.00648	0.08386	0.07722	0.01737	-0.00980	-0.04920	0.03911	-0.07799
42	0.08272	-0.06635	-0.05115	0.08979	0.00959	-0.04855	-0.10146	0.10121	0.03185
43	0.05928	-0.04580	0.07717	0.02648	-0.02619	-0.16004	-0.06615	0.05308	-0.01331
44	0.04244	-0.13149	-0.01210	-0.00507	-0.12237	-0.11206	-0.03498	-0.03734	0.05267

	28	29	30	31	32	33	34	35	36
28	1.00000								
29	0.19597	1.00000							
30	0.26212	0.67382	1.00000						
31	0.32934	0.54826	0.72042	1.00000					
32	-0.57368	-0.08733	-0.12913	-0.09978	1.00000				
33	-0.07864	0.03108	0.09730	0.10348	0.00772	1.00000			
34	0.01220	-0.00969	0.08032	0.07245	-0.03095	0.38981	1.00000		
35	-0.04429	-0.04956	0.03828	0.03108	-0.01446	0.36377	0.49478	1.00000	
36	-0.03914	0.00778	0.01704	0.01893	0.04657	0.16515	0.34631	0.40123	1.00000
37	-0.19839	-0.20898	-0.25269	-0.19810	0.14424	0.08003	0.16263	0.17118	0.15551
38	-0.15184	-0.04048	-0.06569	-0.10792	0.12291	0.17912	0.30347	0.17509	0.22415
39	-0.16589	0.02519	-0.05627	-0.03042	0.19969	0.13304	0.12160	0.09626	0.20382
40	-0.18394	-0.03674	-0.04351	-0.09222	0.20239	0.27374	0.27203	0.17087	0.15824
41	0.07802	0.04063	0.09019	0.02309	-0.14686	0.39415	0.47388	0.41143	0.39529
42	-0.13687	-0.05053	-0.08065	-0.12994	0.11801	0.23577	0.26998	0.23192	0.07075
43	-0.08719	0.06016	-0.00697	-0.03622	0.01616	0.12859	0.19890	0.19992	0.30641
44	-0.14938	-0.11580	-0.15187	-0.12477	0.17836	0.13352	0.25781	0.35810	0.20016

Table 2b Continued

	37	38	39	40	41	42	43	44
37	1.00000							
38	0.14134	1.00000						
39	0.10138	0.38688	1.00000					
40	0.19009	0.18158	0.23460	1.00000				
41	0.19485	0.27773	0.27248	0.30211	1.00000			
42	0.24740	0.18182	0.16917	0.13595	0.34592	1.00000		
43	0.18910	0.29025	0.33115	0.16503	0.33433	0.22977	1.00000	
44	0.28632	0.24706	0.08644	0.15774	0.24499	0.38163	0.24972	1.00000

Table 3b: Inter-item Correlations for Childrens' Achievement Scale*

Item Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	---																			
2	.09	---																		
3	-.05	.01	---																	
4	-.09	.02	.08	---																
5	.03	.04	.03	-.07	---															
6	.21	.09	-.05	-.05	.03	---														
7	.03	.02	.14	.01	.00	-.02	---													
8	-.01	.08	.06	-.06	.01	.03	.09	---												
9	.08	.06	-.04	-.01	.03	.05	-.05	.05	---											
10	.01	-.06	.06	-.15	.02	-.03	.01	.04	-.02	---										
11	.11	.39	-.03	-.03	.08	.09	-.03	.07	.10	-.02	---									
12	.05	.00	.01	-.07	.00	.01	.00	-.04	.01	.10	.07	---								
13	-.05	.04	.13	.03	.00	-.08	.09	.17	-.01	-.02	-.02	-.03	---							
14	-.02	.03	-.10	-.02	.02	.01	-.08	.11	.07	-.01	.07	.00	.00	---						
15	.18	.05	-.05	-.07	.04	.64	-.01	.05	.05	-.03	.08	.03	-.07	.02	---					
16	-.01	.05	.17	.05	.01	-.03	.22	.13	-.06	-.08	.00	-.06	.17	-.11	-.04	---				
17	-.04	.04	.05	.36	-.03	-.03	.00	.01	-.03	-.12	-.01	-.07	.07	-.06	-.03	.08	---			
18	-.11	.01	.06	.30	-.05	-.07	.01	.06	-.01	-.09	-.02	-.03	.04	-.04	-.09	.06	.29	---		
19	.06	.24	.07	-.03	.04	.03	.11	.08	.01	.00	.15	.02	.03	-.02	.00	.14	.00	-.05	---	
20	-.01	-.02	.08	-.09	.03	-.01	.03	.07	-.05	.09	-.??	.02	.06	.00	-.01	.04	-.04	-.05	.01	---

*Specific content of each item can be ascertained in Appendix A of this study.

Table 4b: Inter-item Correlations for Goal Impedance Scale*

Item Number	1	2	3	4	5	6	7	8	9	10	11	12
1	---											
2	.14	---										
3	.24	.25	---									
4	.12	.18	.20	---								
5	.06	.15	.21	.16	---							
6	.12	.15	.18	.23	.22	---						
7	.18	.14	.12	.24	.16	.43	---					
8	.15	.17	.19	.19	.19	.24	.27	---				
9	.21	.17	.23	.12	.16	.30	.27	.22	---			
10	.18	.17	.24	.14	.20	.23	.13	.18	.32	---		
11	.18	.15	.19	.16	.16	.28	.25	.16	.39	.27	---	
12	.12	.17	.28	.11	.28	.23	.09	.21	.26	.41	.17	---

*Specific Content of each item can be ascertained in Appendix A of this study.

Table 5b: Zero-Order Correlations Among Variables of Model for the Total Sample

	1	2	3	4	5	6	7	8	9
1	1.00000								
2	0.40743	1.00000							
3	0.09171	0.17515	1.00000						
4	-0.18615	-0.21699	-0.01372	1.00000					
5	0.30396	0.31112	0.01210	-0.27216	1.00000				
6	0.19704	0.11677	-0.02190	-0.11183	0.54891	1.00000			
7	0.25419	0.28678	0.02621	-0.22586	0.87151	0.32231	1.00000		
8	0.22322	0.26074	0.02754	-0.21752	0.77689	0.25796	0.59862	1.00000	
9	0.25925	0.23950	-0.00653	-0.25580	0.83411	0.37568	0.61774	0.48972	1.00000
10	-0.06505	-0.01521	0.06567	0.28967	-0.52192	-0.22971	-0.42692	-0.36629	-0.53753
11	0.04562	0.28252	0.08216	0.16157	-0.33012	-0.12769	-0.27446	-0.20447	-0.36545
12	-0.05389	-0.00037	0.17116	0.27740	-0.50521	-0.21946	-0.41324	-0.36014	-0.51234
13	-0.07571	-0.03607	0.06219	0.40162	-0.52209	-0.22962	-0.42358	-0.37352	-0.53051
14	-0.03323	0.02056	0.06287	0.26188	-0.40218	-0.16226	-0.32377	-0.25171	-0.45089
15	-0.02786	0.01943	0.06438	0.25704	-0.39758	-0.04633	-0.34548	-0.27950	-0.45647
16	-0.00848	0.04079	0.05467	0.22537	-0.26452	-0.12520	-0.12934	-0.16900	-0.37554
17	-0.01457	0.03747	0.05122	0.23013	-0.32908	-0.14958	-0.28720	-0.10832	-0.41878
18	-0.04620	0.00930	0.06621	0.26498	-0.44003	-0.19639	-0.37489	-0.30915	-0.43058
19	-0.14415	0.10779	0.16140	-0.00304	0.05105	-0.03698	0.04582	0.05906	0.06160
20	0.19097	0.57541	0.19988	-0.12443	0.22615	0.05877	0.20922	0.19745	0.19389
21	-0.09126	0.14339	0.39472	-0.01597	0.05025	-0.03625	0.04724	0.05805	0.05827
22	-0.19227	0.05309	0.14513	0.18339	-0.00349	-0.05836	-0.00207	0.01770	0.01074
23	-0.05292	0.18118	0.15747	-0.05485	0.23433	0.06530	0.20921	0.19966	0.21103
24	-0.04909	0.15266	0.14498	-0.03741	0.20274	0.26456	0.13446	0.12040	0.16006
25	0.00179	0.22158	0.14814	-0.08289	0.33552	0.07289	0.37624	0.25060	0.25928
26	-0.04602	0.18884	0.15274	-0.05723	0.24825	0.02626	0.20143	0.31394	0.18225
27	-0.06341	0.16805	0.15597	-0.05186	0.20406	0.03296	0.16308	0.14767	0.24115
28	-0.12334	-0.02985	0.10098	0.17651	-0.31257	-0.14242	-0.26658	-0.21907	-0.30432
29	0.00132	0.16920	0.10523	0.10205	-0.18067	-0.06150	-0.16223	-0.09892	-0.20269
30	-0.10742	-0.01784	0.16542	0.16450	-0.30365	-0.13615	-0.26167	-0.21592	-0.29124
31	-0.12870	-0.04031	0.09352	0.24926	-0.31867	-0.14559	-0.26788	-0.22949	-0.30909
32	-0.09341	-0.00148	0.09753	0.15189	-0.22938	-0.10055	-0.19522	-0.13993	-0.24401
33	-0.08862	0.00317	0.09723	0.16128	-0.23744	-0.02818	-0.21476	-0.16826	-0.26182
34	-0.05866	0.01532	0.08004	0.12827	-0.13750	-0.07345	-0.07142	-0.08439	-0.18876
35	-0.07285	0.01615	0.08708	0.12992	-0.18336	-0.09466	-0.17257	-0.05193	-0.22024
36	-0.10705	-0.01340	0.10255	0.15438	-0.25205	-0.12295	-0.22396	-0.17173	-0.23504

Table 5b Continued

	10	11	12	13	14	15	16	17	18
10	1.00000								
11	0.78330	1.00000							
12	0.96646	0.77584	1.00000						
13	0.97416	0.73516	0.94040	1.00000					
14	0.96904	0.80538	0.93606	0.93596	1.00000				
15	0.92717	0.77026	0.89821	0.89829	0.94928	1.00000			
16	0.85123	0.73729	0.82192	0.82017	0.93068	0.84847	1.00000		
17	0.90452	0.77574	0.86917	0.86753	0.96069	0.88766	0.88639	1.00000	
18	0.97286	0.79367	0.94165	0.94054	0.98260	0.92481	0.87571	0.91846	1.00000
19	-0.07999	-0.07777	-0.05629	-0.07677	-0.07861	-0.07711	-0.07697	-0.07328	-0.07404
20	-0.09878	0.02773	-0.07466	-0.10249	-0.07932	-0.07436	-0.06499	-0.06308	-0.08381
21	-0.05866	-0.05261	-0.01305	-0.05765	-0.05799	-0.05629	-0.06053	-0.05545	-0.05193
22	-0.03097	-0.04947	-0.00919	-0.00887	-0.03611	-0.03529	-0.04150	-0.03684	-0.03060
23	-0.16129	-0.12221	-0.13996	-0.15976	-0.13842	-0.13814	-0.11195	-0.12106	-0.14060
24	-0.12465	-0.09058	-0.10313	-0.12316	-0.10688	-0.07695	-0.09459	-0.09984	-0.11207
25	-0.19721	-0.14321	-0.17987	-0.19497	-0.16346	-0.16951	-0.10463	-0.14782	-0.17361
26	-0.15993	-0.11124	-0.14063	-0.16064	-0.12981	-0.13760	-0.10666	-0.09263	-0.13781
27	-0.16177	-0.12934	-0.13924	-0.15990	-0.14439	-0.14657	-0.12651	-0.13248	-0.13841
28	0.59245	0.43672	0.61059	0.57923	0.57213	0.54397	0.48823	0.53420	0.58321
29	0.46366	0.59452	0.49391	0.43790	0.48540	0.46780	0.43670	0.47721	0.47813
30	0.57513	0.43856	0.63402	0.55937	0.55528	0.52984	0.47057	0.51593	0.56872
31	0.57803	0.41141	0.59268	0.59804	0.55013	0.52514	0.46720	0.50836	0.56157
32	0.57345	0.45869	0.59088	0.55256	0.59685	0.55794	0.54649	0.57587	0.59544
33	0.55240	0.44788	0.57120	0.53440	0.56524	0.59531	0.49500	0.52745	0.55720
34	0.50450	0.42535	0.51631	0.48384	0.56294	0.50350	0.59883	0.53820	0.53970
35	0.53771	0.45312	0.55138	0.51278	0.57832	0.52285	0.52476	0.60463	0.56356
36	0.57622	0.44526	0.59653	0.55598	0.58704	0.54218	0.51642	0.55328	0.60452

	19	20	21	22	23	24	25	26	27
19	1.00000								
20	0.73942	1.00000							
21	0.94024	0.73367	1.00000						
22	0.96392	0.66628	0.90133	1.00000					
23	0.96471	0.78391	0.90790	0.91016	1.00000				
24	0.90942	0.72240	0.85422	0.86344	0.93589	1.00000			
25	0.88234	0.76806	0.83205	0.82000	0.96002	0.86362	1.00000		
26	0.92919	0.76815	0.87499	0.87498	0.97163	0.88019	0.92463	1.00000	
27	0.96461	0.77001	0.90710	0.91120	0.98857	0.91704	0.92951	0.94413	1.00000
28	0.31137	0.17226	0.31697	0.26763	0.17733	0.20725	0.08950	0.16411	0.17659
29	0.24369	0.31088	0.26057	0.27399	0.16274	0.19117	0.10065	0.16668	0.15177
30	0.30227	0.17740	0.33987	0.35427	0.17206	0.20241	0.08498	0.15760	0.17303
31	0.30380	0.15784	0.30688	0.38798	0.16787	0.19835	0.08219	0.15182	0.16764
32	0.30139	0.19179	0.30671	0.34863	0.19905	0.22224	0.12306	0.19688	0.19027
33	0.29033	0.18896	0.29702	0.33772	0.18557	0.25391	0.10574	0.17201	0.17304
34	0.26515	0.18393	0.26708	0.30467	0.19921	0.20422	0.17883	0.19362	0.17730
35	0.28260	0.19588	0.28551	0.32214	0.19853	0.20816	0.12699	0.22641	0.18168
36	0.30285	0.18183	0.31036	0.35098	0.19194	0.21060	0.11034	0.18142	0.19507

Table 5b Continued

	28	29	30	31	32	33	34	35	36
28	1.00000								
29	0.78262	1.00000							
30	0.97077	0.78214	1.00000						
31	0.97567	0.74106	0.94287	1.00000					
32	0.96793	0.81268	0.93946	0.93256	1.00000				
33	0.93241	0.79210	0.90778	0.90143	0.94908	1.00000			
34	0.85155	0.74842	0.82158	0.81709	0.93522	0.85371	1.00000		
35	0.90760	0.79733	0.87717	0.86662	0.96503	0.88945	0.89545	1.00000	
36	0.97261	0.79263	0.94789	0.93816	0.98624	0.92630	0.89063	0.93225	1.00000

X_1 = Anticipatory occupational success
X_2 = Anticipatory educational success
X_3 = California Childrens achievement scale score
X_4 = Goal impedance
X_5 = Socio-economic origin index
X_6 = Residence
X_7 = Fathers' education
X_8 = Mothers' education
X_9 = Fathers' occupation
X_{10} = Race
X_{11} = Race x Anticipatory educational success
X_{12} = Race x California childrens achievement scale
X_{13} = Race x Goal impedance
X_{14} = Race Socio-economic origin index
X_{15} = Race x Residence
X_{16} = Race x Fathers' education
X_{17} = Race Mothers' education
X_{18} = Race x Fathers' occupation
X_{19} = Sex
X_{20} = Sex x Anticipatory educational success
X_{21} = Sex x California Childrens achievement scale
X_{22} = Sex x Goal impedance
X_{23} = Sex x Socio-economic origin index
X_{24} = Sex x Residence
X_{25} = Sex x Fathers' education
X_{26} = Sex x Mothers' education
X_{27} = Sex x Fathers' occupation
X_{28} = Race x Sex
X_{29} = Race x Sex x Anticipatory educational success
X_{30} = Race x Sex x California childrens achievement scale
X_{31} = Race x Sex x Goal impedance
X_{32} = Race x Sex x Socio-economic origin index
X_{33} = Race x Sex x Residence
X_{34} = Race x Sex x Fathers' education
X_{35} = Race x Sex x Mothers' education
X_{36} = Race x Sex x Fathers' occupation

Table 6b:

Standardized Regression Coefficients and Coefficients of Determination for the General Model with Socio-economic Status Indicies Disaggregated

Dependent Variable	X_9	X_8	X_7	X_6	X_4	X_3	X_2	R^2
X_4	-.168	-.096*	-.063*	-.003	--	--	--	.078
X_3	-.034	.028	.040	-.029	--	--	--	.003
X_2	.052*	.139*	.134*	.006	-.140*	.166*	--	.150
X_1	.089*	.018	.045	.099*	-.065*	.033	.337*	.210

*Coefficients significant at $\alpha = .05$.

Table 7b: Zero-Order Correlations of Variables in the model for Blacks*

Variable Number	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9
X_1	---								
X_2	.34	---							
X_3	.08	.12	---						
X_4	-.12	-.20	-.02	---					
X_5	.26	.30	-.01	-.14	---				
X_6	.19	.19	.02	-.06	.55	---			
X_7	.19	.22	-.01	-.08	.82	.30	---		
X_8	.23	.25	-.05	-.14	.80	.31	.52	---	
X_9	.16	.22	.02	-.14	.70	.26	.39	.39	---

*X_1 = Anticipatory occupational success

X_2 = Anticipatory educational success

X_3 = California childrens achievement scale score

X_4 = Goal impedance

X_5 = Socio-economic origin index

X_6 = Residence

X_7 = Fathers' education

X_8 = Mothers' education

X_9 = Fathers' occupation

Table 8b: Zero-Order Correlations of Variables in the Model for Whites*

Variable Number	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9
X_1	---								
X_2	.43	---							
X_3	.10	.19	---						
X_4	-.20	-.23	-.04	---					
X_5	.33	.37	.07	-.15	---				
X_6	.19	.10	-.01	-.05	.51	---			
X_7	.27	.34	.08	-.13	.85	.24	---		
X_8	.21	.31	.09	-.12	.72	.15	.53	---	
X_9	.29	.29	.04	-.12	.79	.32	.54	.37	---

*X_1 = Anticipatory occupational success

X_2 = Anticipatory educational success

X_3 = California childrens achievement scale score

X_4 = Goal impedance

X_5 = Socio-economic origin index

X_6 = Residence

X_7 = Fathers' education

X_8 = Mothers' education

X_9 = Fathers' occuaption

Table 9b:

Unstandardized Regression Coefficients and Coefficients of Determination for Black and White Subsamples with Socio-Economic Status Indicies Disaggregated

Dependent Variable and Race	X_9	X_8	X_7	X_6	X_4	X_3	X_2	α	R^2
Black									
X_4	-.111*	-.357*	.066	-.039	----	----	----	64.84	.028
X_3	.008	-.043	.004	.058	----	----	----	8.52	.005
X_2	.238*	1.038*	.482	2.164*	-1.633*	1.574*	----	14.73	.132
X_1	.017	.319	.159	.917*	- .043	.275	.120*	55.81	.149
White									
X_4	-.052*	-.187*	-.168*	.000	----	----	----	57.00	.024
X_3	-.002	.056*	.034	-.070	----	----	----	7.74	.010
X_2	.293*	1.441*	1.147	-.225	-.506*	1.783*	----	1.10	.205
X_1	.142*	.043	.137	1.054*	-.122*	.138	.156*	53.16	.233

*Coefficients significant at $\alpha = .05$.

Table 10b:

Covariance Analysis for Black and White Models with Socio-Economic Status Indicies Disaggregated

Independent Variable	Dependent Variable X_4	X_3	X_2	X_1
X_9	-.052*	-.002	.294*	.142*
X_8	-.187*	.056*	1.441*	.043
X_7	-.108*	.034*	1.147	.137
X_6	.000	-.070	-.225	1.054*
X_4	--	--	-.506*	-.122*
X_3	--	--	1.783*	.138
X_2	--	--	--	.156*
X_{10}	1.784*	.788	13.630	2.652
X_{19}	-.059	.010	-.056	-.124*
X_{18}	-.170	-.099*	-.403	.276
X_{17}	.234	-.030	-.665	.022
X_{16}	-.040	.128	2.389*	-.138
X_{14}	--	--	.138	.080
X_{13}	--	--	-.209	.137
X_{12}	--	--	--	-.036
α	57.00	7.74	1.10	53.16
R^2	.107	.014	.188	.219

*Coefficients significant at $\alpha = .05$.

Table 11b: Zero-Order Correlations of Variables in the Model for Females*

Variable Number	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9
X_1	---								
X_2	.31	---							
X_3	.07	.15	---						
X_4	-.14	-.17	.03	---					
X_5	.25	.21	.00	-.26	---				
X_6	.15	.06	-.03	-.11	.57	---			
X_7	.20	.19	.02	-.21	.86	.34	---		
X_8	.20	.22	.03	-.22	.78	.29	.59	---	
X_9	.21	.15	-.03	-.25	.83	.40	.60	.49	---

*X_1 = Anticipatory occupational success

X_2 = Anticipatory educational success

X_3 = California childrens achievement scale score

X_4 = Goal impedance

X_5 = Socio-economic origin index

X_6 = Residence

X_7 = Fathers' education

X_8 = Mothers' education

X_9 = Fathers' occupation

Table 12b: Zero-Order Correlations of Variables in the Model for Males*

Variable Number	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9
X_1	---								
X_2	.51	---							
X_3	.15	.17	---						
X_4	-.23	-.26	-.05	---					
X_5	.37	.40	.01	-.28	---				
X_6	.23	.18	-.01	-.12	.53	---			
X_7	.31	.36	.02	-.24	.88	.31	---		
X_8	.27	.33	.01	-.21	.77	.23	.60	---	
X_9	.33	.32	.00	-.27	.84	.36	.63	.49	---

*X_1 = Anticipatory occupational success

X_2 = Anticipatory educational success

X_3 = California childrens achievement scale score

X_4 = Goal impedance

X_5 = Socio-economic origin index

X_6 = Residence

X_7 = Fathers' education

X_8 = Mothers' education

X_9 = Fathers' occupation

Table 13b:

Unstandardized Regression Coefficients and Coefficients of Determination for Female and Male Subsamples with Socio-Economic Status Indicies Disaggregated

Dependent Variable and Sex	X_9	X_8	X_7	X_6	X_4	X_3	X_2	α	R^2
Female									
X_4	-.132*	-.391*	-.088	.093	----	----	----	63.95	.076
X_3	-.012*	.027	.027	-.049	----	----	----	8.52	.005
X_2	.024	1.150*	.472*	-.570	-.322*	1.755*	----	22.51	.094
X_1	.056*	.096	.072	.494*	-.038	.126	.086*	62.12	.137
Male									
X_4	-.134*	-.219*	-.213*	-.112	----	----	----	64.66	.083
X_3	-.002	.002	.014	-.020	----	----	----	8.90	.001
X_2	.192*	1.171*	1.168*	1.027	-.425*	1.898*	----	55.21	.209
X_1	.140*	.151	.106	1.027	-.100*	.517*	.219*	42.97	.307

*Coefficients significant at $\alpha = .05$.

Table 14b:

Covariance Analysis for Female and Male Models with Socio-Economic Status Indicies Disaggregated

Independent Variable	Dependent Variable X_4	X_3	X_2	X_1
X_9	-.132*	-.012*	.024	.056*
X_8	-.391*	.027	1.150*	.096
X_7	-.088	.027	.472*	.072
X_6	.093	-.049	-.570	.494
X_4	--	--	-.322*	-.038
X_3	--	--	1.755*	.126
X_2	--	--	--	.086*
X_{20}	.708	.381	-16.984	-19.147*
X_{29}	-.002	.010	.167	.084*
X_{28}	.173	-.024	.021	.055
X_{27}	-.125	-.013	.696*	.034
X_{26}	-.205	.030	1.596	.661
X_{24}	--	--	-.103	-.062
X_{23}	--	--	.143	.391*
X_{22}	--	--	--	1.34*
α	63.95	8.52	22.51	62.12
R^2	.080	.032	.166	.284

*Coefficients significant at $\alpha = .05$.

Table 15b: Zero-Order Correlations of the Variables in the Model for Black Females*

Variable Number	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9
X_1	---								
X_2	.24	---							
X_3	.11	.11	---						
X_4	-.15	-.22	.03	---					
X_5	.26	.26	-.01	-.08	---				
X_6	.19	.12	.02	-.02	.58	---			
X_7	.14	.19	.04	.04	.80	.29	---		
X_8	.22	.19	-.05	-.09	.78	.32	.49	---	
X_9	.21	.23	-.03	-.07	.63	.29	.29	.29	---

*X_1 = Anticipatory occupational success

X_2 = Anticipatory educational success

X_3 = California childrens achievement scale score

X_4 = Goal impedance

X_5 = Socio-economic origin index

X_6 = Residence

X_7 = Fathers' education

X_8 = Mothers' education

X_9 = Fathers' occupation

Table 16b: Zero-Order Correlations of the Variables in the Model for Black Males*

Variable Number	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9
X_1	---								
X_2	.43	---							
X_3	.14	.15	---						
X_4	-.10	-.16	-.08	---					
X_5	.28	.35	.00	-.21	---				
X_6	.20	.28	.03	-.10	.51	---			
X_7	.24	.25	-.04	-.12	.84	.32	---		
X_8	.25	.33	-.04	-.21	.82	.28	.56	---	
X_9	.15	.22	.07	-.21	.77	.23	.51	.51	---

*X_1 = Anticipatory occupational success

X_2 = Anticipatory educational success

X_3 = California childrens achievement scale score

X_4 = Goal impedance

X_5 = Socio-economic origin index

X_6 = Residence

X_7 = Fathers' education

X_8 = Mothers' education

X_9 = Fathers' occupation

Table 17b: Zero-Order Correlations of the Variables in the Model for White Females*

Variable Number	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9
X_1	---								
X_2	.35	---							
X_3	.07	.16	---						
X_4	-.12	-.20	-.01	---					
X_5	.25	.31	.07	-.13	---				
X_6	.12	.06	-.01	-.02	.50	---			
X_7	.21	.28	.07	-.10	.84	.24	---		
X_8	.17	.31	.10	-.14	.73	.17	.53	---	
X_9	.21	.23	.03	-.10	.80	.31	.54	.39	---

*X_1 = Anticipatory occupational success

X_2 = Anticipatory educational success

X_3 = California childrens achievement scale score

X_4 = Goal impedance

X_5 = Socio-economic origin index

X_6 = Residence

X_7 = Fathers' education

X_8 = Mothers' education

X_9 = Fathers' occupation

Table 18b: Zero Order Correlations of the Variables in the Model for White Males*

Variable Number	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9
X_1	---								
X_2	.52	---							
X_3	.16	.18	---						
X_4	-.25	-.27	-.08	---					
X_5	.40	.42	.07	-.17	---				
X_6	.22	.14	.00	-.06	.52	---			
X_7	.32	.39	.07	-.16	.85	.25	---		
X_8	.26	.31	.06	-.10	.71	.15	.53	---	
X_9	.37	.34	.04	-.14	.79	.33	.55	.35	---

*X_1 = Anticipatory occupational success

X_2 = Anticipatory educational success

X_3 = California childrens achievement scale score

X_4 = Goal impedance

X_5 = Socio-economic origin index

X_6 = Residence

X_7 = Fathers' education

X_8 = Mothers' education

X_9 = Fathers' occupation

Table 19b:

Unstandardized Regression Coefficients and Coefficients of Black Females, Black Males, White Females and White Males Subsamples with Socio-Economic Status Indicies Disaggregated

Dependent Variable and Race	X_9	X_8	X_7	X_6	X_4	X_3	X_2	a	R
Black Females									
X_4	-.068	-.271	.035	.188	----	----	----	61.26	.011
X_3	-.007	-.051	.040	.067	----	----	----	8.73	.010
X_2	.444*	.696	.529	.384	-.492*	1.775*	----	19.80	.130
X_1	.103*	.326*	-.052	.790	-.075	.472*	.050*	58.74	.132
Black Males									
X_4	-.164	-.451	.155	-.461	----	----	----	69.26	.061
X_3	.026	-.042	-.042	.085	----	----	----	8.34	.017
X_2	-.008	1.775*	.396	4.299*	-.184	1.961*	----	-1.90	.179
X_1	-.064	.332	.432	.623	-.015	.683	.192*	47.50	.214
White Females									
X_4	-.040	-.370*	-.052	.143	----	----	----	56.12	.023
X_3	-.005	.078*	.028	.062	----	----	----	7.42	.013
X_2	.181*	1.614*	.769*	-.464	-.418*	1.404*	----	7.72	.157
X_1	.059*	-.022	.150	.386	-.034	.040	.096*	62.77	.148
White Males									
X_4	-.064*	-.033	-.271*	-.063	----	----	----	57.69	.031
X_3	.000	.027	.037	-.030	----	----	----	8.13	.006
X_2	.394*	1.294*	1.413*	.257	-.392*	1.660*	----	-.57	.245
X_1	.228*	.264	.029	1.202*	-.166*	.472*	.214*	40.01	.334

Coefficients significant at a = .05.

Table 20b:

Covariance Analysis for Black Female, Black Male, White Female, White Male Models with Socio-Economic Status Indicies Disaggregated

Independent Variable	Dependent Variable X_4	X_3	X_2	X_1
X_9	-.040	-.005	.181*	.059
X_8	-.370*	.078*	1.614*	-.022
X_7	-.052	.028	.769*	.150
X_6	.143	-.062	-.464	.386
X_4	--	--	-.418*	-.034
X_3	--	--	1.404*	.040
X_2	--	--	--	.096*
X_{10}	5.153	1.313	12.075	-4.033
X_{19}	-.027	-.001	.263	.044
X_{18}	.099	-.129*	-.918	.348
X_{17}	.087	.012	-.239	-.201
X_{16}	.045	.129	.849	.405
X_{14}	--	--	-.074	-.041
X_{13}	--	--	.372	.432
X_{12}	--	--	--	-.046
X_{20}	1.580	.717	-8.288	-22.756*
X_{29}	-.023	.006	.213	.169*
X_{27}	.337	-.051	-.320	.286
X_{26}	-.218	.009	.644	-.121
X_{24}	-.206	.031	.722	.817*
X_{23}	--	--	-.174	-.132*
X_{22}	--	--	.256	.432*
X_{30}	--	--	--	.117*
X_{39}	6.423	-1.106	-13.412	11.518
X_{38}	-.073	.027	-.665*	-.336*
X_{37}	-.517	.060	2.399	-.281
X_{36}	.338	-.091	-.777	.604
X_{34}	-.443	-.013	3.192	-.984
X_{33}	--	--	-.070	-.221
X_{32}	--	--	--	.025
α	56.11	7.42	7.72	62.77
R^2	.111	.042	.210	.296

*Coefficients significant at $\alpha = .05$.

VITA

The author was born March 1, 1942, in New Iberia, Louisiana. He received his primary and secondary education in the public schools of St. Mary Parish, Louisiana, graduating from Centerville High School in June of 1959. In the fall of that year he entered St. Paul Bible College, St. Paul, Minnesota, spent two years of study there, transferred to Bethel College, St. Paul, Minnesota, spent one year of study there, and transferred to Louisiana College, Pineville, Louisiana. He graduated from Louisiana College with a Bachelor of Arts in May of 1965. In September of 1965 he entered Louisiana State University as a graduate student in Sociology. In the fall of 1966 he was given a graduate assistantship as a statistics laboratory instructor. In June of 1967 he accepted employment with Gulf South Research Institute, terminated there in July of 1968 to accept employment with the Louisiana Commission on Law Enforcement and Administration of Justice, and terminated there in December 1969. In January of 1970 he re-entered Louisiana State University as a full time graduate student in Sociology.

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